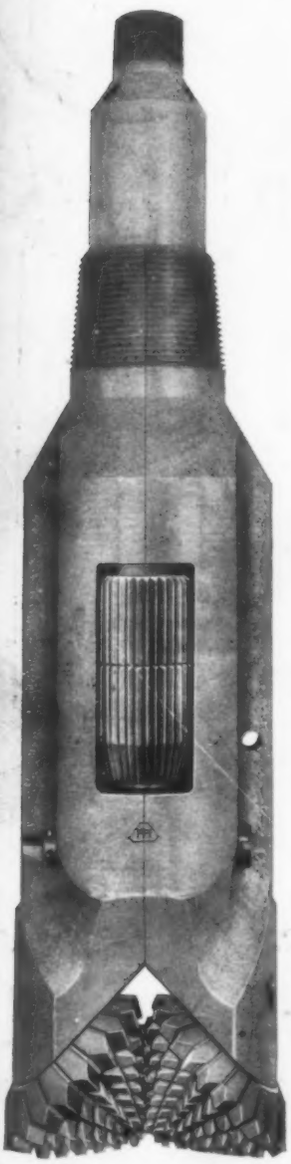
10¢ A COPY

The OIL WEEKLY

March 25, 1927 Volume 45. No. 1

LIBRARY OF
DERSON & PORTE
NEW YORK



It Happened in Mexico

Wherever the Hughes Self-Cleaning Cone is used performance records are made that far eclipse any previous efforts.

Mexico is no exception.

Using Hughes Self-Cleaning Cones, Operators, Contractors and Drillers are getting an average of 200 feet per set of cones—where 40 feet was formerly considered good; and are averaging four times as much hole per tour.

The teeth on Hughes Self-Cleaning Cones are formed in concentric circles and so spaced that they intermesh, cleaning themselves of all formation while rotating. This feature allows maximum penetration of the formation at all times.

HUGHES Self-Cleaning Cones

Sold By Supply Stores Everywhere

HUGHES TOOL COMPANY

Service Plants: Los Angeles, Calif. Oklahoma City, Okla.

Main Office and Plant: HOUSTON, TEXAS

Export Office: New York City

WARTBURG COLLEGE LIBRARY

Spang Weldless Jars

World Renowned for Endurance

Spang Weldless Jars are world renowned for their unbroken record in footage and endurance. Their good performance under the hardest drilling conditions is the natural result of a painstaking selection of the finest alloy steel billets and a masterful forging technique that is born of Spang's long experience.

A special heat treatment after forging assures the close grained, super-steel that is exclusively characteristic of all Spang Weldless Jars.—One of the big reasons why Spang Weldless Jars are the dominating jars in all fields.

Specify Spang—it always pays—over 300 supply houses throughout the oil fields carry complete stocks.

665.505
W893
v.45
APR 15 1938
414881
Geol.

Spang Thread Protector

Protect your Tool Joints with SPANG Thread Protectors. Like all Spang products they guarantee absolute satisfaction and long, durable service.

SPANG & COMPANY

BUTLER, PENNA.

Sold by All Leading Supply Houses

Patented Dec. 5, 1925—Other Patents Pending

The OIL WEEKLY. Issued weekly by the Gulf Publishing Co., 2710 Dallas Ave., Houston, Texas. Subscription price $1.00 per year; 10 cents per copy. Entered as second-class mail matter December 23, 1916, at the post office at Houston, Texas, under act of March 3, 1879.

SANDERS & PORTER
APR 2 - 1927
REF'D TO
ANS'D

Emergency Service

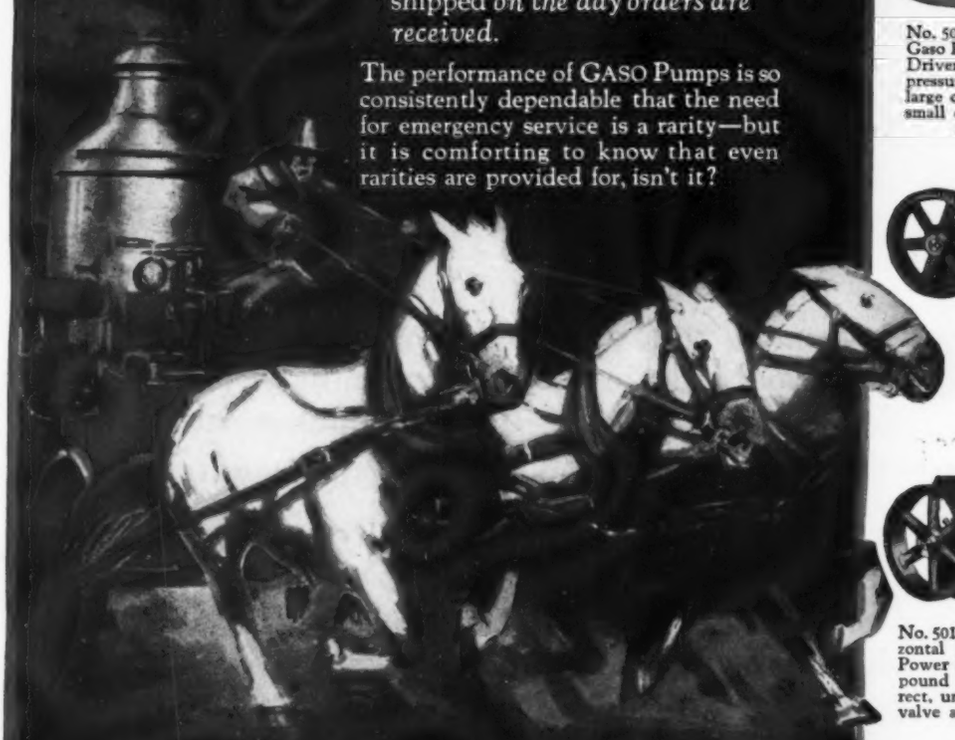
In seeking to guard your company against the possibility of serious breakdowns in pumping service, here are three things to keep in mind—

GASO Pumps have *fewer* and *stronger* parts.

The GASO plant is in *Tulsa*.

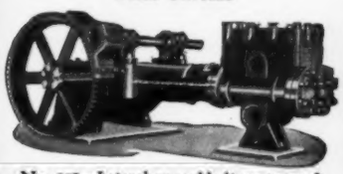
As a rule, GASO parts are shipped *on the day orders are received*.

The performance of GASO Pumps is so consistently dependable that the need for emergency service is a rarity—but it is comforting to know that even rarities are provided for, isn't it?

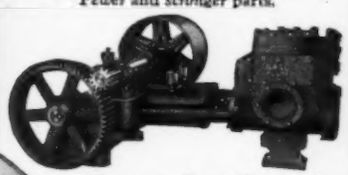


GEAR-DRIVEN PUMPS

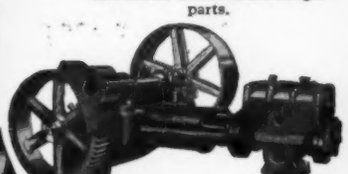
Geared to Long Life and Real Service



No. 508—*Interchangeable liner* type of Gaso Horizontal Duplex Piston Gear-Driven Power Pump [200 to 800 pound pressures.] Quickly changeable from large capacity low-pressure service to small capacity high-pressure service. *Fewer* and *stronger* parts.



No. 507 — Gaso Horizontal Duplex Piston Gear-Driven Power Pump, especially suited to *suction* service. Ideal for large capacity low-pressure work. Valves and parts easily accessible. *Fewer* and *stronger* parts.



No. 501—A popular model Gaso Horizontal Duplex Piston Gear-Driven Power Pump, designed for 200 to 800 pound working pressures. Large, direct, unobstructed fluid passages and valve areas; simple design; *fewer* and *stronger* parts.

GASO PUMP & BURNER MFG. CO.

Tulsa · Oklahoma

GASO PUMPS

for every oil industry need

In the Path of

WHO can tell! Perhaps your lease escaped the path of the winds which bowled across the country last year. Perhaps this year it's your turn to have everything flattened out before the terrific velocity of a hurricane while last year's unfortunate neighbor escapes unscathed. Some day, sooner or later, it's going to be your turn. Are you prepared?

Piles of kindling wood, wrecked equipment and sanded holes! Not an unusual sight in the spring months of today, but surely a happening which the right equipment will make impossible in the future.

As a matter of fact, it was the sight of such physical and financial loss that caused the International Derrick and Equipment Company to be organized—by structural steel men who know that their material, and theirs alone, would solve the oil man's troubles.

INTERNATIONAL STEEL IDECO DERRICKS (GALVANIZED)

The International Derrick

COLUMBUS, OHIO

Dallas, Houston, Mexia, Wichita Falls, Amarillo, Borger, Pampa and Panhandle, Kansas; Tulsa, Tonkawa, Drumright, Okemah, Seminole and Wewoka, Oklahoma; New York Office:

Export

Columbus New York Los

The largest company devoted exclusively equipment for the oil, gas

Say you saw it in The OIL WEEKLY

a Wind Storm

International "IDECO" Derricks of Galvanized Structural Steel mean a permanent, yet portable, installation devoid of upkeep expense, but absolutely storm-proof.

"IDECO" derricks are built of beams, channels and angles, giving greater strength for a given weight than any other form of steel construction—fabricated entirely in our own plant. By the International method of galvanizing after fabrication, every exposed part is given an extra-heavy rust-preventing zinc coating.

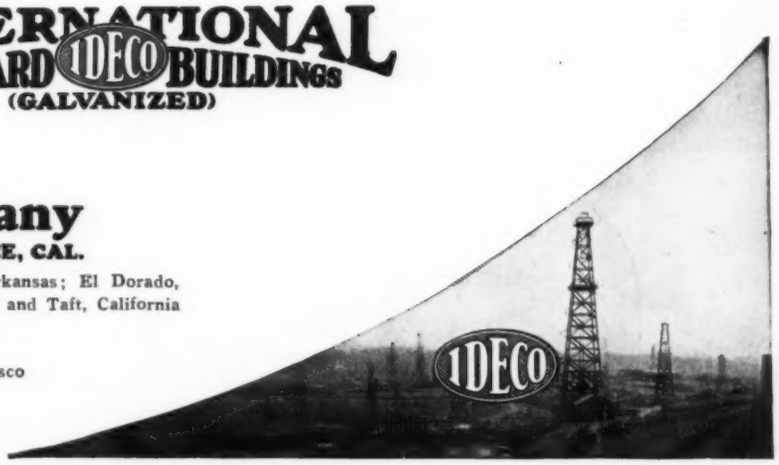
How big operators have effected remarkable savings in their production costs is shown in the booklet, "Steel vs. Wood." Write for it.

INTERNATIONAL
STANDARD IDECO BUILDINGS
(GALVANIZED)

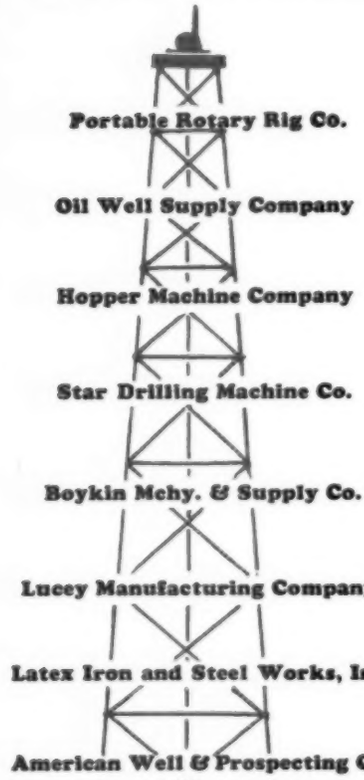
& Equipment Company
TORRANCE, CAL.

Texas; Shreveport and Oil City, Louisiana; Smackover, Arkansas; El Dorado, Denver, Colorado; Casper, Wyoming; Torrance, Los Angeles and Taft, California
30 Church Street.
Offices:
Angeles Houston San Francisco

to the manufacture of steel (galvanized) and artesian industries.



The Speedy Progress of AMERICAN HEAVY DUTY TYPE "C" ROLLER BEARINGS STANDARDIZATION


Portable Rotary Rig Co.
Oil Well Supply Company
Hopper Machine Company
Star Drilling Machine Co.
Boykin Mchy. & Supply Co.
Lucey Manufacturing Company
Latex Iron and Steel Works, Inc.
American Well & Prospecting Co.

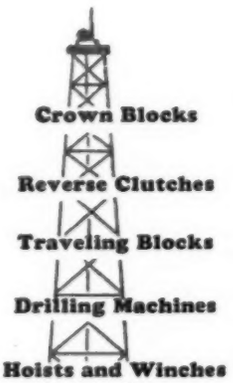
Oil Field Machinery and Drilling Equipment is improving

In less than a year and a half these prominent manufacturers have standardized on this *exclusively industrial bearing*.

Their accelerated sales of roller bearing containing equipment is direct proof that *accelerated* workability and more reliable performance for a greater life of use is needed, is wanted, and is appreciated in oil field work.

Engineering is coming to the front. Plain bearings are being replaced. Roller Bearing equipped products are in demand.

Write for Catalogue 1006



AMERICAN ROLLER BEARING CO.
PITTSBURGH, PENNA.

Oil Industry's Standard

LARGEST MANUFACTURERS OF ROLLER BEARINGS FOR INDUSTRIAL PURPOSES

SPECIALISTS IN PRODUCTION OF ROLLER BEARINGS FOR THE OIL INDUSTRY

No Weight Too Great

Say you saw it in The OIL WEEKLY

A Letter from Harry G. Nye

NYE NO. 2
Geared Threading Device Improved

Capacity 2½ to 4 in. inclusive
Net price complete $50.00
West of Rocky Mountains .. 55.00
FREE TRIAL—ABSOLUTELY GUARANTEED

NYE No. 51—Chain Vise
Capacity ⅛ to 2½ inches

A handy, compact little vise, possessing maximum strength, while of minimum weight. Easily carried in tool kit. Equipped with standard jaws. Having features not found in similar vises, the double lever tightening device being above the bench, rather than below, insuring faster and smoother operation.

Net Price $4.67
ABSOLUTELY GUARANTEED

The rugged construction and few working parts account for the simplicity and durability of these Nye Receding models. They do the work easily and efficiently.

No. 1 Nye Receding Pipe Threader, complete ....$9.60 net
West of Rocky Mountains.$10.80

To the Oil Men of the U. S. A.

Friend Oil Men:

Yes, President Coolidge is going to spend his vacation in the West this summer, if you can call it a vacation. It is a great thing for the President to get out in the wide open spaces, and away from the wide open towns, away from everything and everybody except a couple of dozen Secret Service men, a half a hundred newspaper photographers and three or four thousand tourists who want to see what Mr. Coolidge looks like, even if they can't figure out why.

There won't be enough space left in the wide open spaces to park a flivver. Personally, that wouldn't be any vacation for me A TALL. When I go fishing I don't want anybody around but me and the fish, and by that I don't mean a lot of poor fish from Washington, who either have a job or want one. When a bass gets off the hook, and I have something to say, I don't want to have to worry about how it will sound.

What I would like to do with Cal Coolidge is to take him with me up to a place I know. I'm not going to tell you where it is—the fishing is too good. But there wouldn't be anybody there but me and the President and a guide, and, if he wanted to come to the table with his coat off, it wouldn't get in the papers. If he wanted to go around with his suspenders hanging down, so would I.

I've got a guide up there that can make a piece of bacon sizzle to the queen's taste. He would fill the President full of flapjacks instead of flapdoodle, and then take him out and show him how to hit a trout in the mouth with a fly. As I understand it, the President is not an accomplished fisherman, but we will get him so good he can land a muskie with a piece of darning cotton.

And I won't strike the President for a job, either. I've got job enough already—one wife, a modern daughter, two boys, a car in its third season, a pair of hound dogs, a factory, and seven million competitors trying to see who can make the cheapest pipe-cutting tools instead of trying to see who can make the best.

And yet you can't blame 'em. They know already who makes the best.

Yours truly,

HARRY G. NYE

Otherwise Known As

THE NYE TOOL & MACHINE WORKS

4120-30 Fullerton Avenue

Chicago, Ill.

(Copyright, 1927, by Harry G. Nye. All rights reserved)

Nye Self-Locking Vise

No.	Pipe	Vise, Complete Net
00	⅛ to 2 "	$2.82
10	⅛ to 2½"	3.34
20	¼ to 3½"	5.00
30	½ to 4½"	7.33

Nye Barnes Pipe Cutters

No. 1	.....	$ 2.25 net
No. 2	.....	3.00 net
No. 3	.....	5.00 net
No. 4	.....	10.00 net
No. 5	.....	15.00 net
No. 6	.....	20.00 net

Nye thin blade cutter wheel, made to fit all standard makes of pipe cutters, and guaranteed against breakage in use. Made both in smooth and knurled edge.

Nye Saunders Pipe Cutter

No. 1	.....	$ 1.80 net
No. 2	.....	2.70 net
No. 3	.....	6.60 net
No. 4	.....	10.80 net
No. 5	.....	16.80 net

Co-ordination

A perfect co-ordination of advanced engineering and machine shop practice—a co-ordination of approved oil well engineering and field requirements, have developed in "Lorraine Built" a specialized line of tools, equipment and machines that stand out alone in every operating requirement.

Lorraine Built Equipment is not considered sold until you are "Sold" on its efficiency and performance, and back of all is an organization willing and able to assist in making Lorraine Built Equipment more valuable to your particular requirements.

LORRAINE BUILT ARTICLES ILLUSTRATED ARE:

1. Lorraine Two-Way Valve
2. Lorraine "B & M" Stuffing Box
3. Lorraine Relief Valve
4. Crowell "Makesure" Cement Barrel
5. Lorraine Automatic Oil and Gas Separator
6. Stitzinger Universal Bearing (for Sand Reels)
7. Lorraine Sucker Rod Rack

TWO ADDITIONS TO THE LORRAINE LINE

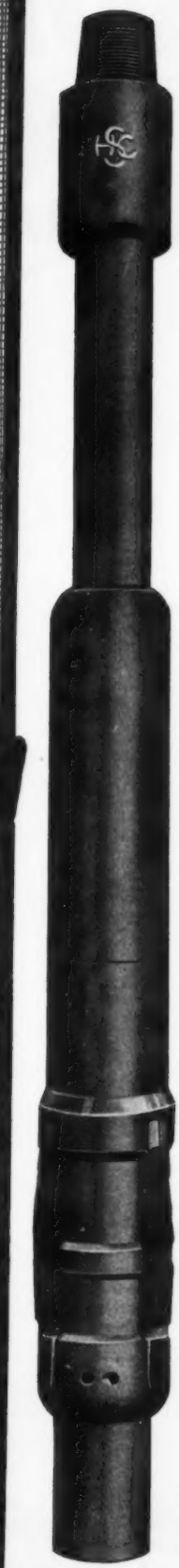
Lorraine Multiple Flow Nipple
Lorraine Polish Rod Clamp

Catalogs of all Lorraine Equipment sent to those interested.

THE LORRAINE CORP.

Manufacturers and Distributors,
OIL WELL SPECIALTIES
115th and Alameda Streets,
Los Angeles, Calif.

Oklahoma Branch:
The Lorraine Corp., 406 West First St., Tulsa, Okla.
Arkansas Branch:
Southern Specialty Co., 523 So. Washington St.,
Box 1796, El Dorado, Arkansas.
Export Distributors:
Buck & Stoddard, 25 Broadway, New York City



it can't stick in the hole!

Smith Expansion Rotary Underreamer

AMONG apparent and appreciated advantages possessed by the Smith Expansion Rotary Underreamer, such as superior design, high quality materials used in its construction, and precision manufacture, is its positive closing feature and the roller cutters which never allow the reamer to stick, or drag, in the casing when coming out.

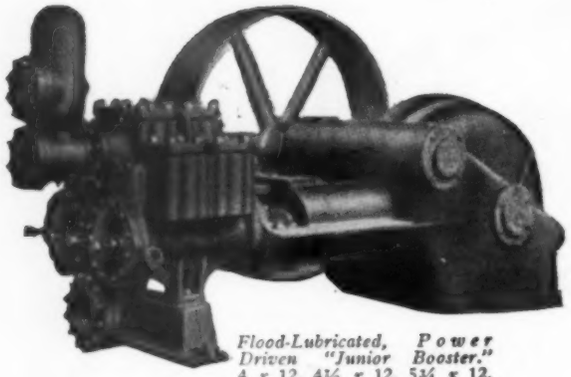
The trip is released by means of hydraulic trip control when the pump is started, and this provides means for the expansion of the roller cutters at any desired depth in the hole, and enables the operator to definitely know when the reamer is expanded.

When the weight is released by releasing the drill pipe, the expanded cutters immediately and positively close by means of dovetail connections with block in which they set and body. The reamer SIMPLY CAN'T STICK IN THE HOLE.

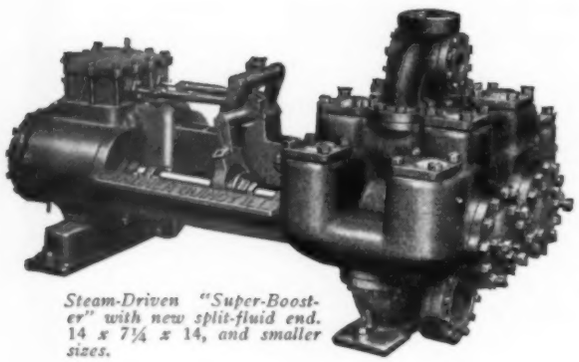
There are many more advantages presented by the Smith Expansion Rotary Underreamer which we would like to tell you about. Write for full particulars.

H. C. SMITH MANUFACTURING COMPANY
Whittier, California
BRANCH OFFICES & WAREHOUSES:
Taft, California,
Ventura, California.
HARRY B. SHINE, Sales Agent,
2408 McKinney Avenue, Houston, Texas,
All Supply Houses.

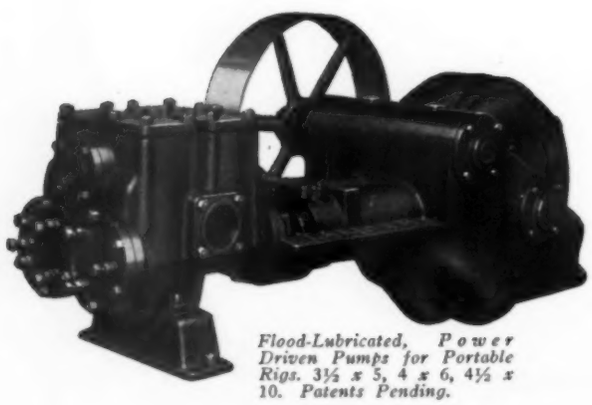
3 TYPES OF MUD PUMPS



Flood-Lubricated, Power Driven "Junior Booster." 4 x 12, 4½ x 12, 5¾ x 12. Patents Pending.



Steam-Driven "Super-Booster" with new split-fluid end. 14 x 7¼ x 14, and smaller sizes.



Flood-Lubricated, Power Driven Pumps for Portable Rigs. 3½ x 5, 4 x 6, 4½ x 10. Patents Pending.

GARDNER offers three distinct types of mud pumps.

(1) Enclosed, Flood-Lubricated, Power Driven Type, in all sizes up to 7¼x14.

(2) Steam Driven Type, in all sizes up to 14x7¼x14.

(3) The "Baby Booster" Enclosed, Flood Lubricated Power Driven Type, in small sizes up to 4½x10, for portable drilling rigs.

These Gardner pumps, in sizes to meet every oil industry requirement, and offering exclusive improvements in design and method of lubrication, constitute the world's most up-to-date and comprehensive line of mud pumps. Ask for descriptive bulletins.

"Quality Builders for Over 65 Years"

THE GARDNER GOVERNOR COMPANY

Quincy, Ill.

CHICAGO
549 Washington Blvd.

NEW YORK
534 Singer Bldg.

PHILADELPHIA
604 Arch Street

MUSKOGEE
323 Dayton Street

HOUSTON
611 Second Natl. Bank Bldg.

SAN FRANCISCO
401 Rialto Bldg.

LOS ANGELES
684 Santa Fe Ave.

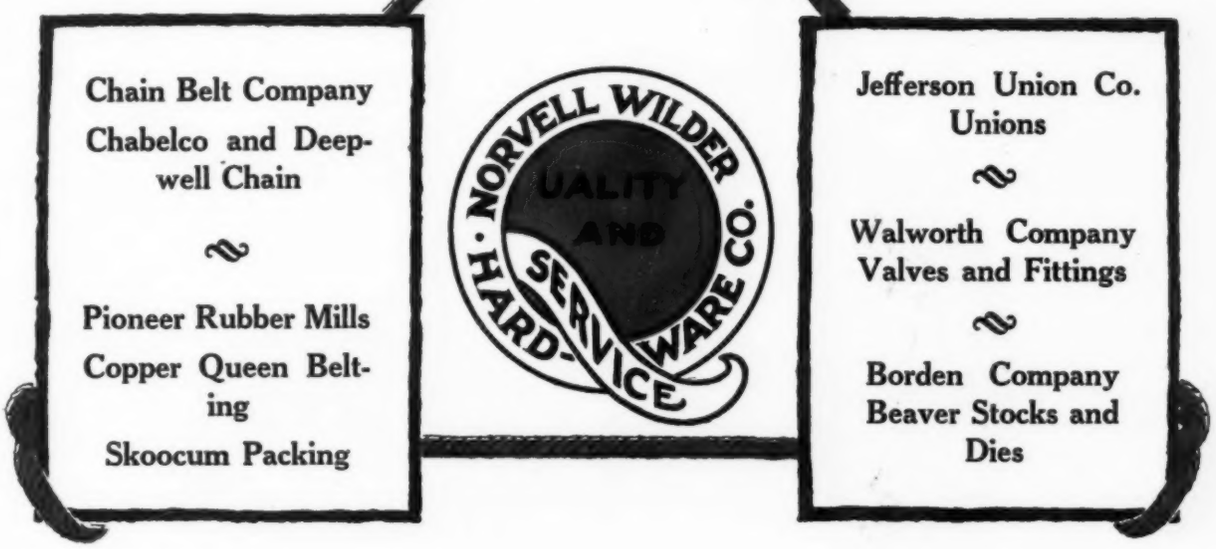
LONDON
25 Bishopsgate E. C. 2

OIL COUNTRY DISTRIBUTORS:

Alamo Iron Works, San Antonio, Texas
Atlas Supply Company, Muskogee, Tulsa and Ft. Worth.
Kirk W. Eichelberger, 401 Rialto Bldg., San Francisco.
Emsco Derrick & Equipment Co., 6811 South Alameda St., Los Angeles, Calif.
Haywood-Williamson, Shreveport and El Dorado
F. W. Heitmann, Houston.
International Supply Co., Stores in all principal Mid-Continent Fields.
Norvell-Wilder Hdwe. Company, Beaumont, Houston and Ft. Worth
The Republic Supply Co. of California—Store in all Principal California Fields.

GARDNER

Oil field supplies to tie to



Above are a few of the worthwhile supplies carried by our stores.

The stock is always complete, and prompt, efficient service is one of our hobbies.

NORVELL WILDER Hardware Company

BEAUMONT HOUSTON SHREVEPORT FT. WORTH

Say you saw it in The OIL WEEKLY

BUY A

LARKIN

NEVER-SLIP PIPE-GRIP

The surest casing grip used in the oil fields

Sold by All Supply Stores

No. 1 catches 5⅝-in. to 4 -in.
No. 2 catches 6⅝-in. to 5 -in.
No. 3 catches 8 -in. to 6⅝-in.
No. 4 catches 10 -in. to 8 -in.
No. 5 catches 13 -in to 10 -in.

The *Never-Slip* is made to handle all sizes of pipe and casing up to 20 inches in diameter

LARKIN & CO.

BUTLER, PENNA., U. S. A.

LEIDECKER

SPIRAL DRILLING BIT

Patented
Other Patents Pending

A Mud Mixer

IT is the slight turn for each stroke of the mallet that makes the mason's drill eat its way through a concrete wall. With Spiral Bits the twist is automatic, propelled by the Spiral design. Practical, effective and patented.

This quality of the Spiral Bit is what mixes mud beyond all usual expectations. It is this feature with the *four* cutting points and *two* cutting edges that provide for a straight full-round hole thru all formations in record time.

A trial set is the first step toward satisfaction.

"DRILLING TOOLS DESIGNED RIGHT WILL DRILL MORE"

Mid-Continent Distributors
THE BOVIARD SUPPLY COMPANY
Tulsa Phone 3-9151

Stocks at: Tulsa, Sapulpa, Beggs, Bristow and Seminole, Oklahoma; Independence, Kansas, and Borger, Texas.

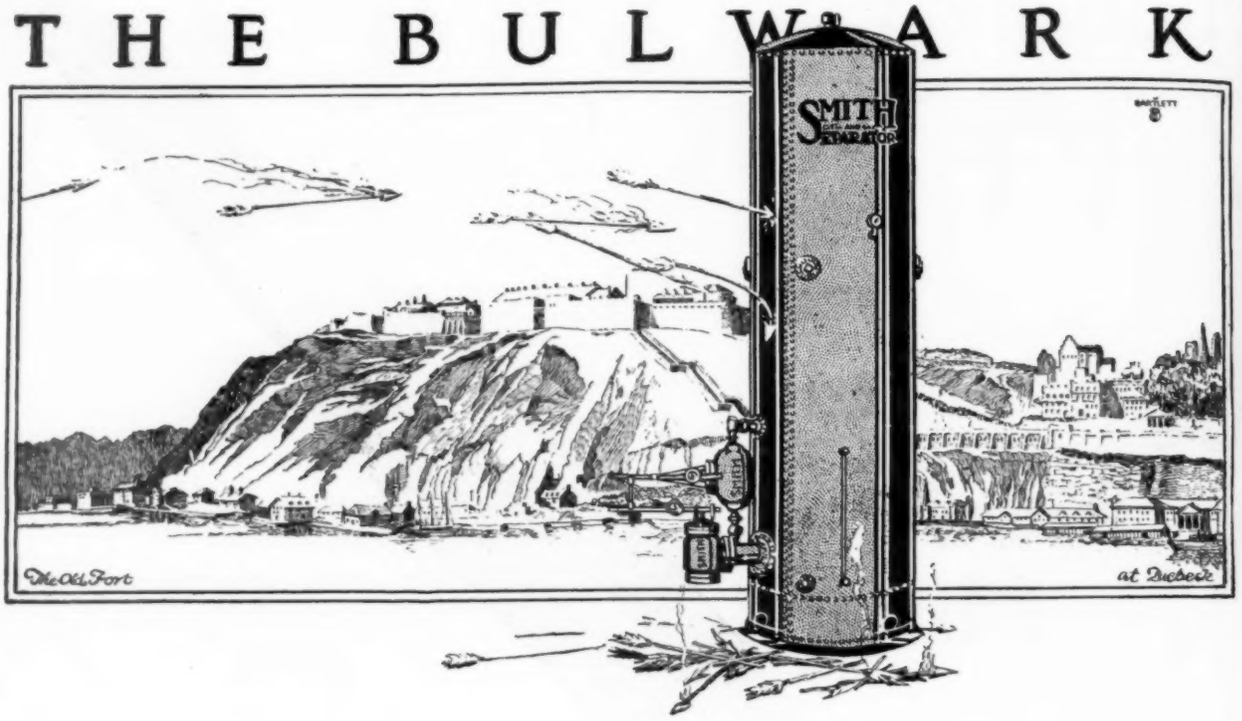
Sold by Supply Houses everywhere

Manufactured by
The Leidecker Tool Co.
Marietta, Ohio

Branches at:
Casper, Wyoming
Basin, Wyoming
Bartlesville, Okla.

Export Office—90 West St., New York

THE BULWARK



In days of old, when the country was new, pioneers built for protection against the unseen enemy.

Protection against property loss—against fire — for the conservation of property—was the idea foremost in the mind of these pioneers.

In the oil country the necessity for protection against hazards of fire, property loss—the necessity for conservation of wealth—demand that every precaution be taken.

Smith Oil and Gas Separators are recognized the world over as conservation and protective units—minimizing fire hazard—conserving all of the values of the oil and the gas that production may be made to give up the longest possible profit. Smith Oil and Gas Separators will prove their dollars-and-cents value on your lease—prove their ability to give you the maximum profit from your production.

SMITH SEPARATOR COMPANY

Tulsa *Okla.*

NEW YORK OFFICE:
Export Representative:
Oil Field Equipment Co.
30 Church St., New York
Cable Address:
"Oilfields," New York

CALIFORNIA OFFICE:
3039 East 38th St.,
Los Angeles, Calif.

LOUISIANA OFFICE:
240 Dalzell St.,
Shreveport, La.

LONDON OFFICE:
Perkins MacIntosh Petroleum Tool & Boring Co., Ltd.,
25 Bishopsgate
Cable Address:
"Oleborers," London

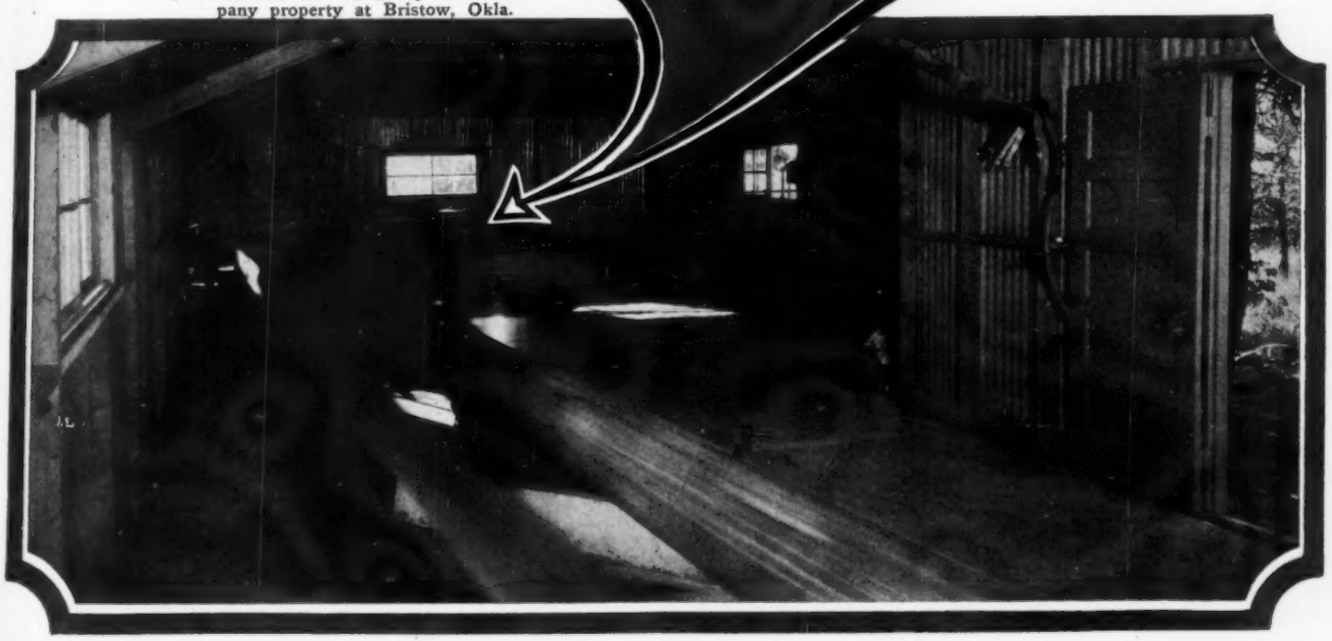
TEXAS OFFICES:
924 Post Dispatch Bldg.,
Houston, Texas
1414 F. & M. Bank Bldg.,
Fort Worth, Texas

Say you saw it in The OIL WEEKLY

A Band Wheel Power that's New!

Six Salient Features of this TICO Achievement

Tico 18-foot Band Wheel Power installation on the Savoy Oil Company property at Bristow, Okla.



The TITUSVILLE IRON WORKS Co.
TITUSVILLE ~ PENNA.

Titusville
Acme Boilers
Single and Twin
Steam Drilling Engines
Tico Gas Engines
Band Wheel and
Geared Powers

SOLE DISTRIBUTORS

The CONTINENTAL SUPPLY COMPANY

For THE CONTINENTAL
No. 2 RECTOR STREET

Export WELL SUPPLY CO.,
NEW YORK CITY, N. Y.

Titusville
Acme Rotaries
Acme Swivels
and Speed Draw Works
High Pressure Boilers
Crown Blocks
Slush Pumps

RUGGED - ENDURING

Where better pipe is needed

On every pipe line, in order to avoid costly pipe failures, it is good economy to provide genuine wrought iron pipe for those places where corrosion is likely to be most severe and where the pipe is more or less inaccessible.

Very often the pipe is hardest to "get at" for the repairs in the very spots where corrosion is the greatest. This is notably true about river crossings, swamps, lakes or wet ground. The use of Byers genuine wrought iron pipe in these places has proven an excellent investment for companies who have followed this practice. Service records point clearly in this direction, and are available for the asking.

That protective coatings are not the solution of the corrosion problem is evident to every practical pipe line man who knows how and where leaks occur. Better, more rust resisting pipe metal is the most logical way to longer pipe life and fewer failures.

Such a metal is wrought iron. It has three distinct advantages over steel; viz:

1. Smaller coefficient of Expansion—therefore less likelihood of collar leaks and breaks in line.

2. A rougher surface to which galvanizing and other protective coatings will adhere with astonishing tenacity, far outlasting coatings on steel pipe.

3. Rust Resistance, proven by a Century of satisfactory service.

A. M. Byers Company

Established 1864

Pittsburgh, Pa. Los Angeles
Houston Tulsa

STOCKS CARRIED AT

Mexia, Houston, Corsicana, Shreveport, El Dorado, Okemah, Taft, Los Angeles, Smackover Sante Fe Springs Thenard Seminole Best McCamey

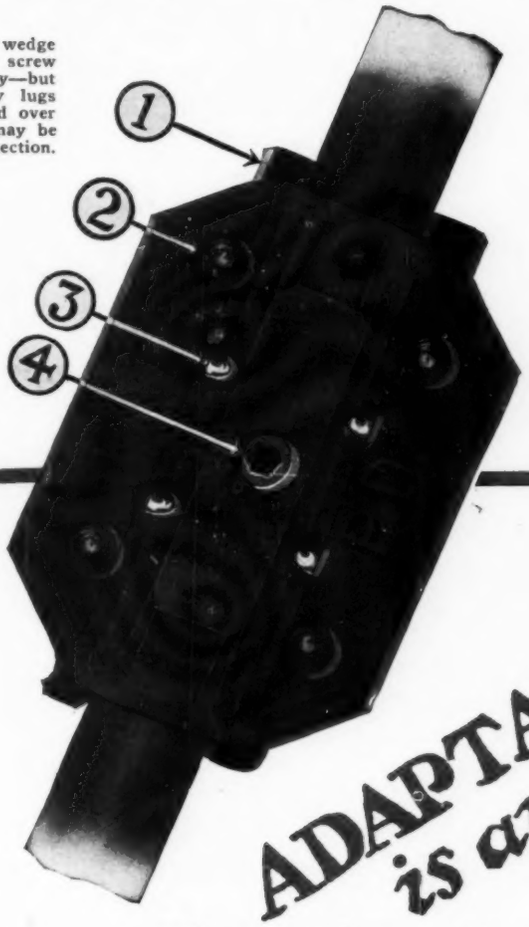
BYERS PIPE

GENUINE WROUGHT IRON

Say you saw it in The OIL WEEKLY

It CAN'T cut the Tubing ~nor the Rod~nor the Coupling BECAUSE it's a SOFTER metal

Rivets (2) for fastening wedge in place which, with set screw (4) afford ample safety—but these are augmented by lugs (1) which may be burred over and grooves (3) which may be calked for further protection.



ADAPTABILITY is another big point in it's favor

Those who have used the SMITH'S BRONZE SUCKER ROD GUIDE ~say it's BEST!

Humble Oil & Refining Co.	National Supply Company
The Texas Company	Republic Supply Company
Gulf Production Company	McMann Oil & Gas Company
Simms Oil Company	Pure Oil Company
Sun Oil Company	Snowden & McSweeny
Tidal Oil Company	U. S. Texcon Oil Company
Navarro Oil Company	Stroube & Stroube
Wheelock & Collins	J. H. Hughes Co.

Manufactured and Stocked By

OIL CITY IRON WORKS

CORSICANA, TEXAS

Write for literature

"Good Enough" Methods are not Tolerated by Chester.

Throughout each day Chester regularly checks the taper and pitch of threads from each threading machine.

The usual method of determining taper by calipers for the short space of 2½ or 3 inches of thread may be good enough for some tube makers, but Chester found this method open to inaccuracies, and promptly abandoned it. The long, carefully-machined straight edges clamped to the threads is the most accurate method known for determining the taper, which can be read to the hundreth part of an inch.

Chester also checks accuracy of threads per inch (that is to say "pitch") with a delicate instrument which registers on its clock-like dial, variations of one thousandths of an inch.

SUPER-ACCURACY

Chester recognizes that accuracy of pitch and taper is the foundation for the satisfactory making-up of threaded joints, and no length is allowed to go into the field which does not conform strictly to Chester's rigid specifications and inspections.

South Chester Tube Company

CHESTER, PENNA.

Pittsburgh New York Houston Tulsa Los Angeles

Casing, Tubing, Line Pipe, Drive Pipe, Rotary Drill Pipe

District Sales Managers:

W. E. Gibson, 801 Columbia Bank Bldg., Pittsburgh, Pa.

P. N. Guthrie, Jr. 30 Church St., New York City

J. P. Cooney 909 A. G. Bartlett Bldg., Los Angeles, Calif.

E. H. Bosches 2024 Houston Post-Dispatch Bldg., Houston, Texas

Distributors:

Prichard Supply Co. Mannington, W. Va.

Petroleum Supply Co. Houston, Texas, Norphlet, Ark.

Wagner Supply Co. Fort Worth, Cross Plains, Panhandle, Breckenridge, and Best, Texas

United Oil Well Supply Co. 908 A. G. Bartlett Bldg., Los Angeles, Calif.

Midland Iron Works Billings, and Kevin, Mont.

Hillman-Cooney, Inc. 1118 Santa Fe Ave., Los Angeles, Calif.

Warehouses at: Houston, Texas—Thenard, Cal.

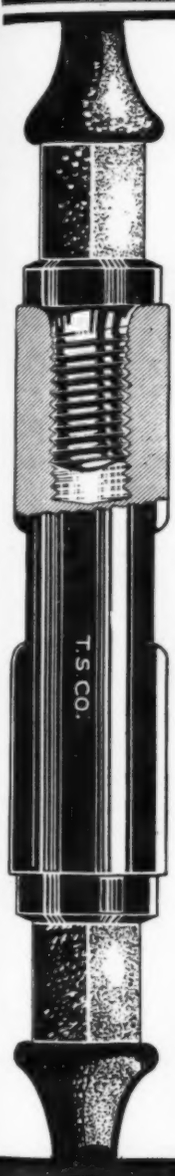
CHESTER

SPECIALISTS IN CASING FOR DEEP WELL DRILLING

STEEL CASING

At Last the GUARANTEED

SUCKER ROD

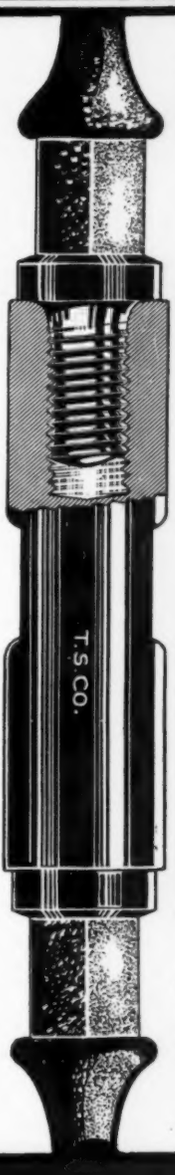


. . . Is made in our own plant from the special analysis *Electric Steel* to the finished product.

It is the only Sucker Rod on the market made of *Electric Steel* . . the **Steel with 20% greater endurance than any other steel of the same analysis.**

Pins and boxes are threaded to A. P. I. Standard which combines the desirable features of both the Whitworth and diminishing threads.

More than two years actual use in many wells has proven that it has greater endurance and will give longer service than any other sucker rod made . . . and we GUARANTEE this performance.



THE GUARANTEE

Texas Electric Steel Sucker Rods are unconditionally guaranteed to give longer and more satisfactory service than any other sucker rod on the market when installed and operated under the same conditions.

REPRESENTATIVES:

Lawrence Anderson Sales Company
329 West Building,
Houston, Texas

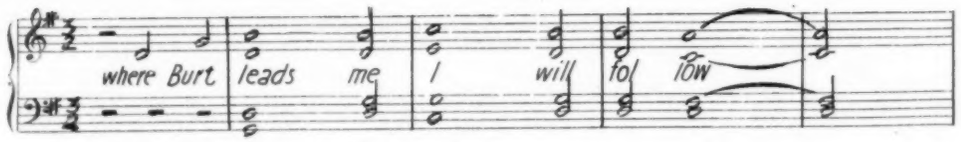
Allen L. Haase,
Tuloma Building,
Tulsa, Okla.

FROM SUPPLY HOUSES
Improved Jacks, Swings and Hold Downs, Nipples and Bull Plugs, Turnbuckles and Shackle Equipment, Casing Shoes, Heads and Clamps, Steel Castings.

TEXAS STEEL CO.

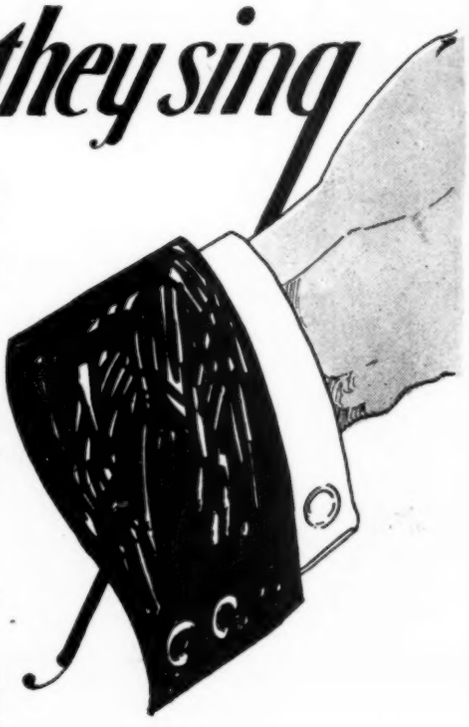
ELECTRIC STEEL MAKERS, ROLLERS AND FINISHERS
FORT WORTH, TEXAS

The Swab Maker's Song



This is the reason they sing

This is a horrible example of what Burt has done to the business. This worn out 6 5/8" veteran did service for 70 days ~ Made 3,360 runs and produced over 49,000 bbls. of oil and water. *No other make of swab ever did this.* Is it any wonder they sing? *"Imitation is the sincerest of flattery"—and we like it.*



Extreme cases of service like the above are often misleading. We do not want to mislead any one. No man who wants to retain his self respect or the respect of his fellowman will use deception to sell merchandise.

When an article is sold with a GUARANTEE like this "It must produce better results for Less Money or you return it and get Full Credit" Guarantees like the above must be backed by more than hot air. The Burt swab has made good. It will meet the terms of this guarantee without any reservations what ever.

THE BURT CORPORATION

325 EAST FOURTH ST. TULSA, OKLAHOMA

Magnolia Petroleum Company

Producer *Refiner* *Jobber* *Distributer*

High Grade Petroleum Products

FUEL OIL

LOADING STATIONS AT

BEAUMONT CORSICANA SABINE GALVESTON FT. WORTH
HARBOR ISLAND LULING CORPUS CHRISTI DALLAS
HERMA, ARK. MIRANDO

MANUFACTURER OF

Magnolene
REG. U.S. PAT. OFFICE

THE

DEPENDABLE LUBRICANT

"a grade for each condition"

For satisfactory operation of Ford Cars use Magnolene Motor Oil for Fords

REFINERIES LOCATED AT

Beaumont, Corsicana and Ft. Worth

General Offices: DALLAS, TEXAS

DIVISION SALES OFFICES:

DALLAS HOUSTON FT. WORTH SAN ANTONIO OKLAHOMA CITY LITTLE ROCK
AMARILLO EL PASO

Inquiries Respectfully Solicited

Dreadnaught Crown Blocks

DREADNAUGHT MFD. BY BEAUMONT IRON WORKS CO. BEAUMONT, TEXAS U. S. A.

This Seal Appears on All Genuine Dreadnaught Equipment, and is a Guarantee of Quality.

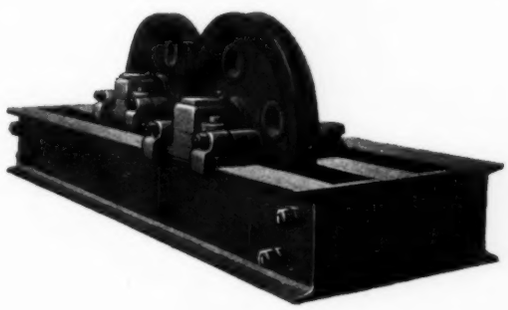
Dreadnaught Type L Crownblocks

DREADNAUGHT Crown Blocks are made with two definite objectives always in mind. One is long life through rigid strength and proper lubrication. The other is that they shall be without exception

"Easy-on-the-line"

Strength is attained by heavy construction and extreme care in fitting parts. Large reservoirs in the bearing caps hold oil or grease, and closely fitting hinged covers keep out rain and grit.

No sheave is ever used in a Dreadnaught Crown Block which doesn't run absolutely true, and the rope grooves are turned to glass-like smoothness. It has been said, and experience seems to bear it out, that Dreadnaught Crown Blocks save enough on lines to pay for themselves many times over.



The sheaves are semi-steel. We can furnish High Manganese Steel Sheaves, sometimes preferred in deep drilling operations.

Dreadnaught Type L Crown Blocks have adjustable bearing boxes, so that the lines may be accurately centered without shifting the Block. The Boxes are readily loosened and shifted, but when tightened they hold.

An illustrated folder is now ready on DREADNAUGHT Crown Blocks. Send for it.

BEAUMONT IRON WORKS CO.

Beaumont, Texas

Frick-Reid Supply Company, Mid-Continent Distributors

WE FAVOR THE STANDARDIZATION PROGRAM OF THE AMERICAN PETROLEUM INSTITUTE

"The corrosion dragon is dead"

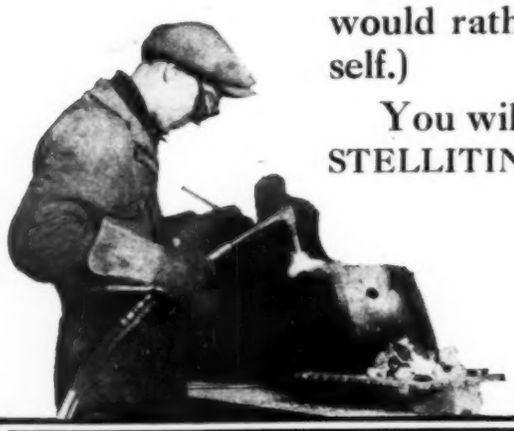
FOR a number of years the dragon of corrosion and the demon of abrasion and a lot of other industrial pests have been "killed" and eliminated.

Yet they always seem to come back again.

Now Stelliting (which means, by the way, covering a metal surface with a layer of Haynes Stellite) will not do the impossible, but it will surprise you. Every time it has been tried it has increased the life of the metal part from three to twelve times.

The reason for this is that Haynes Stellite is an alloy of chromium, cobalt and tungsten. You don't have to know much metallurgy to know that that is a good start. It resists abrasion better than any other metal. (We can prove that, but we would rather have you prove it to yourself.)

You will be interested in our booklet—
STELLITING METAL PARTS.



HAYNES STELLITE COMPANY
Unit of Union Carbide and Carbon Corporation
KOKOMO, INDIANA

District Sales Offices: Carbide and Carbon Building, 30 East 42d Street, New York; Peoples Gas Building, Chicago; Keith Building, Cleveland; General Motors Building, Detroit; 114 Sansome Street, San Francisco; 1310 Santee Street, Los Angeles.

Stelliting with

HAYNES STELLITE

SHAFFER'S KICK-OFF VALVE

Designed to operate in air wells, when flowing through the casing.

insures an instant flow at a minimum amount of pressure and volume.

Eliminates the excessive use of high pressure connections and compressors.

This valve permits the flowing of well from different horizons.

Eliminates picking up or handling of tubing.

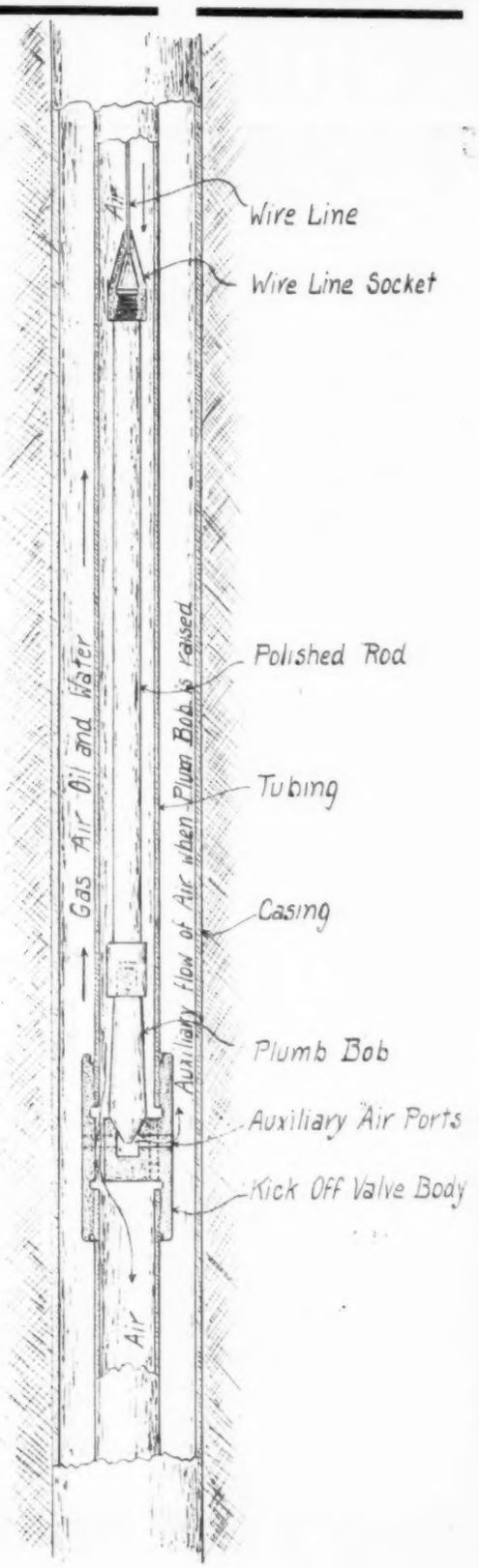
Descriptive Literature and Prices On Request

Manufactured by

THE SHAFFER SPECIALTY CO.

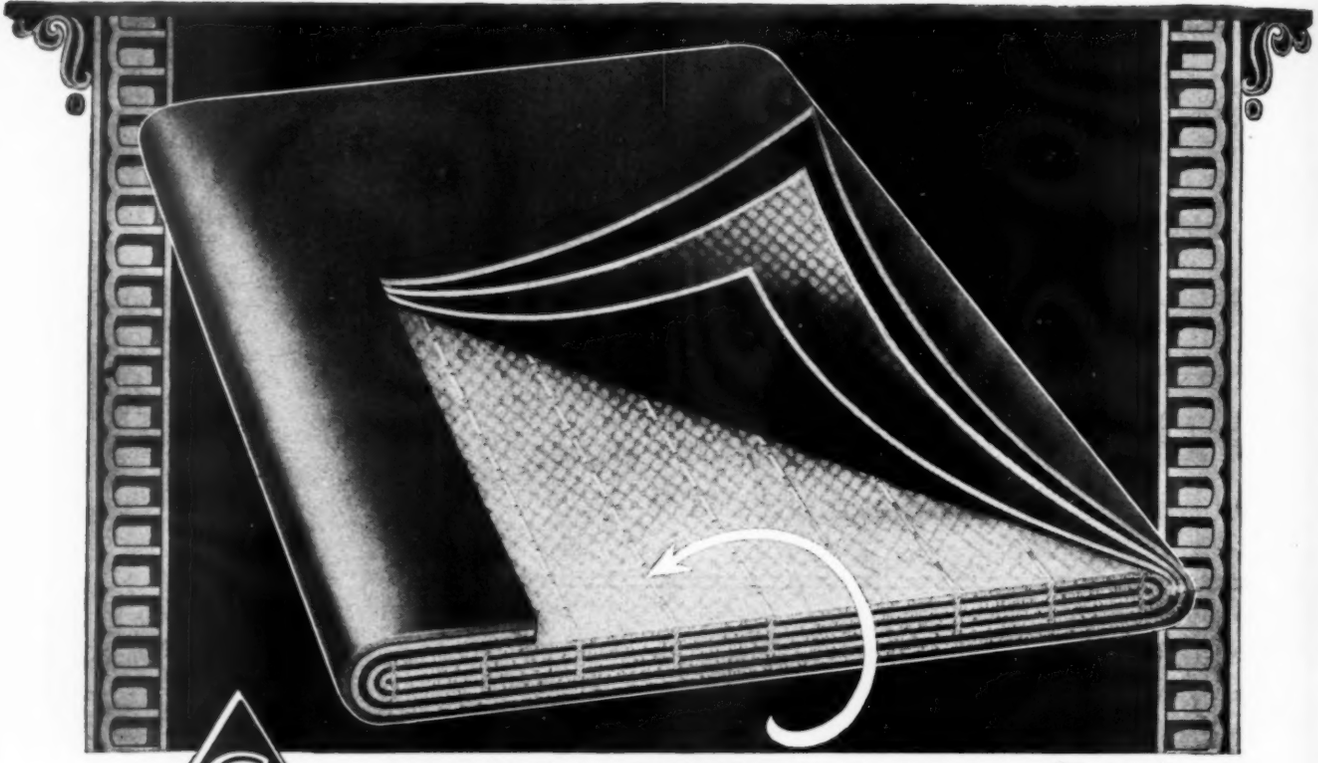
TULSA, OKLA.

113-15 So. Denver Ave.



KICK OFF VALVE DETAILS

50% of Oil Field Belts "BOOTLEG" Before They're Worn Out!



ROUGH RIDERS Innerstitching PREVENTS Bootlegging

Other Advantages

COVER. Tests have proved this special cover to have a strength fully 400 per cent greater than the old time belt cover. It offers maximum resistance to abrasion.

DUCK is a special grade, 35 per cent stronger than that used in ordinary belting.

CUSHION next to inner plies has a "tooth-stretch" of nearly one-half-inch, permitting the the duck to give and take in slippage without pulling loose.

ROUGH RIDER Rubber Belting—the "Innerstitched" Oil Field Belt—was developed by us in response to a definite request on the part of oil field superintendents for a belt that would be proof against ply-separation. These men told us that 50% of drilling and pumping belts are junked before they are worn out, because of "bootlegging."

These same men have enthusiastically endorsed the belt that grew out of their complaint—ROUGH RIDER Belting—This belt has enjoyed a tremendous demand for several years past. Its tough, heavy, innerstitching is protected by cover, duck, and cushion, and assures permanent binding of inner plies against "bootlegging."

Give ROUGH RIDER one trial, and you'll standardize on it.

"If CONTINENTAL Sells It, There Is No Better"

THE CONTINENTAL SUPPLY COMPANY
General Offices: St. Louis.
Export Office: 72-76 Trinity Court, New York
London Office: 316-317 Dashwood House, Old Broad St., London, E. C. 2

CONTINENTAL

Say you saw it in The OIL WEEKLY

INDEX TO ADVERTISERS

A

Abercrombie Company, J. S. ..... *
Acme Fishing Tool Company ..... *
Aetna Ball Bearing Mfg. Company ..... *
Ajax Iron Works 70-71
Alco Oil Tool Company ..... *
Alten's Foundry and Machine Works 116
Aluminum Company of America ..... *
Amarillo Abstract Company ..... *
Amarillo Hotels 121
American Cable Company ..... *
American Manufactuirng Company of Texas 97
American Roller Bearing Company 6
American Seamless Tube Company ..... *
American Telephone & Telegraph Company *
American Well Works ..... *
Anderson & Anderson 121
Andrews Steel Company ..... *
Arco Company ..... *
Athey Truss Wheel Company ..... *
Axelson Machine Company .....Back cover
Atmore Company, Robert N. ..... *

B

B. & A. Specialty Company 114
Baash-Ross Tool Company 108
Baird Tool Works ..... *
Baird Supply Company ..... *
Baker Casing Shoe Company ..... *
Barnickel, William S., Company 116
Beaumont Iron Works 23
Becker Specialty Company ..... *
Beebe Brothers ..... *
Bessemer Gas Engine Company ..... *
Biggs Boiler Works Company ..... *
Bovaird Supply Company ..... *
Bowser Company, S. F., ... 69
Bridgeport Machine Company ..... *
Brown, Arthur C. 121
Buckeye Traction Ditcher Company ..... *
Burns Tool Company ..... *
Burt Corporation 20-21
Butler Manufacturing Company ..... *
Byers Company, A. M. 16

C

Cameron Iron Works ..... *
Central Alloy Steel Corporation 111
Central Tube Company 106
Chicago Pneumatic Tool Company..... 65
Clark Brothers Company ..... *
Climax Engineering Company 61
Continental Motors Corporation ..... *
Continental Supply Company 26
Cook Motor Company ..... *
Cyclone Fence Company ..... *

D

D. & B. Pump & Supply Company ..... *
Darling Valve Manufacturing Company ...117
De La Vergne Machine Company ..... *
Diamond Drill Carbon Company 110
Dunn Manufacturing Company 28

E

Eagle Picher Lead Company ..... *
Eastern Torepdo of Ohio Company ..... *
Eclipse Paint & Manufacturing Company ... *
Elliott Core Drilling Company ..... *
Emsco Derrick & Equipment Company 113

F

Fairbanks-Morse Company .....Insert
Federal Supply Company 95
Flexible Steel Lacing Company ..... *
Fort Worth Laboratories 121
Franklin Valveless Engine Company 66-67
Frick-Reid Supply Company 99
Fuller Machine & Forge Works 118

G

Gallup Map & Supply Company 121
Gardner Governor Company 10
Gaso Pump & Burner Manufacturing Co... 3
General Electric Company 93
Gott, H. P., Manufacturing Company 120
Goulds Pumps, Inc. ..... *
Great Northern Hotel ..... *
Greenspons, Jos., Iron and Steel Company..125
Guiberson Corporation 119
Gulf Coast Machine & Supply Company .... *
Gulf Refining Company 130
Gulf States Utilities Company ..... *

H

H. E. Hales ..... *
Halliburton Oil Well Cementing Company 101
Halliburton Co., Erle P., ... *
Hardway & Cathey 121
Harrisburg Pipe & Pipe Bending Company ..
..... Inside back cover
Harrisburg Pipe & Pipe Bending Company of Texas 79
Haynes Stellite Company 24
Heppenstall Forge & Knife Company 116
Hercules Motor Corporation ..... *
Heydrick Mapping Company 124
Hinderliter Tool Company ..... *
Hirsch & Brown 121
Hoover Steel Ball Company ..... *
Hope Engineering & Supply Company ..... *
Hopkins, Edwin B. 121
Houston Engineers 110
Houston National Bank ..... *
Houston Pump & Supply Company ..... *
Hough Manufacturing Co., Charles N. ..... *
Hughes Tool Company ..... Front cover
Humble Oil & Refining Company ..... *

I

Imperial Royalties, Inc. ..... *
International Derrick & Equipment So. 4-5
International Supply Company 91
Iron King Manufacturing Company ..... *

J

Jefferson Union Company ..... *
Jarecki Manufacturing Company ..... *
Jensen Bros., Manufacturing Company ..... *
Johns-Mansville, Inc. 77
Jones Company, The S. M. 108

K

Kerotest Manufacturing Company ..... *
Keystone Pipe & Supply Company 120

L

Lancaster & Allwine 121
Landis Machine Company ..... *
Larkin & Company 12
Layne & Bowler ..... *
Le Bus Rotary Tool Works ..... *
Leidecker Tool Company 13
Leonard, P. G. ..... *
Link-Belt Company ..... *
Lorraine Corporation 8
Lucey Manufacturing Company 105
Ludlow Valve Manufacturing Company 129
Lufkin Foundry & Machine Company ..... *
Lunkenheimer Company 103
Lyons, Thomas D. 121

M

MacClatchie Manufacturing Company ..... *
Magnolia Petroleum Company 22
Maloney Tank Manufacturing Company ...114
Manzel Brothers Company ..... *
Maverick, Phillip 121
McEvoy, J. H. & Company ..... *
McGregor Working Barrel Co., Inc. ..... *
Merit Oil Equipment Company 104
Metric Metal Works ..... *
Mission Sales Company ..... *
Moore, Lee C., & Company 51-62-63

N

Nabors, Company, W. C. ..... *
Nagle Map Company 121
National Petroleum Engineering Company..120
National Pigments & Chemical Company 125
National Supply Companies 115
National Tube Company ..... *
National Turnbuckle Derrick Company ..... *
Neilan, Schumacher & Company ..... *
Norris Brothers, Inc. ..... *
Norris Manufacurer, W. C. 107
Northrup Equipment Company ..... *
Norvell-Wilder Hardware Company 11
Novo Engine Company ..... *
Nuttall Company, R. D. ..... *
Nye Tool and Machine Works 7

O

O'Brien Steel Construction Company ..... *
Oil City Iron Works (Shreveport) 106
Oil City Iron Works (Corsicana) 17
Oil Country Specialties Manufacturing Co. *
Osage Indian Agency 125
Oil Field Tool Company ..... *
Oil Well Accessories Company 129
Oil Well Supply Company 30

P

Parkersburg Rig & Reel Company ..... *
Pattin Bros. Company ..... *
Peden Iron & Steel Company 112
Petroleum Iron Works ..... *
Petroleum Rectifying Company 109
Pittsburgh Steel Products Company ..... *
Portable Rotary Rig Company ..... *
Price, W. Armstrong ..... *

R

Ratigan, J. P ..... *
Reading Iron Company ..... *
Reed Roller Bit Company ..... *
Regan Forge & Engineering Company ..... *
Reid, Joseph, Gas Engine Company ..... *
Republic Supply Company ..... *
Rex Supply Company ..... *
Robertson-McDonald Lumber Company ..... *
Rock Island Plow Company ..... *

S

Shaffer, J. E. Company ..... *
Shaffer Specialty Company 25
Shaffer Tool Works ..... *
Shaw, S. F. 121
Shine, Harry B. ..... *
Sinclair Refining Company 81
Shivyer Steel Castings Company ..... *
Smith, H. C., Manufacturing Company 9
Smith Separator Company 14
Smith, Howard, Company ..... *
Sonner Gas Burner Company, The J. P. ... *
South Chester Tube Company 18
Southern Engine & Pump Company ..... *
Southern Brass Manufacturing & Plating Company 116
Standard Collapsible Rotary Drill Company.. *
Spang & Company .....Inside front cover
Star Drilling Machine Company, The 49
Stearns-Roger Manufacturing Company 127
Steiner, Dr. George 121
Stone, Jesse R. 121
Sullivan Company, The ..... *
Sullivan Machinery Company ..... *

T

Taubman Supply Corporation 84-85
The Texas Company 102
Templeton, Kenley & Company, Ltd. ..... *
Texas Cyclone Fence Company ..... *
Texas Oil Pump Company 112
Texas & Pacific Railway 128
Texas Power & Light Company 87
Texas Steel Company 19
Timken Roller Bearing Company ..... *
Titusville Iron Works, The 15
Trimont Manufacturing Company ..... *
Trinity Portland Cement Company 74
Trumble Gas Trap Company ..... *
Tyler Tube & Pipe Company, The 125

U

United Iron Works ..... *
United States Torpedo Company ..... *

V

Valerius, M. M. 118
Victaulic Company of America ..... *
Voe Company ..... *
Volz Engineering Company ..... *

W

Ward Chemical Company ..... *
Wagner Electric Company 100
Waukesha Motor Company 122
Webster, C. W. 121
Weinzierl, John F. 121
Westcott & Greis 89
Wickwire-Spencer Steel Company, Inc. .... *
Wico Electric Company ..... *
Wheeling Steel Corporation ..... *
Williams & Company, J. H. ..... *
Williamsport Wire Rope Company ..... *
Wilson Oil Tools Corporation 73
W-K-M Company 59

Y

Yale & Towne Company ..... *

Z

Zero Hour Petroleum Company ..... *

(DUNN TOOLAGRAM)

HAZARDS

THE danger of dropped tubing is another of the hazards of petroleum development which we have relegated to the past.

With a Dunn Super - Safety Tubing Stop in the string, the tubing simply cannot drop. Prove this at our expense. Ask for details.

DUNN
MANUFACTURING COMPANY
OXNARD, CALIFORNIA

Mid-Continent Branch Warehouse
215 East Archer St. Tulsa, Oklahoma

Export Sales Office
150 Broadway, New York City

OIL WELL DUNN TOOLS

Say you saw it in The OIL WEEKLY

LIBRARY OF
SANDERSON & PORTER
NEW YORK

SPECIALIZED OIL JOURNALS
GULF PUBLISHING COMPANY
PRODUCING REFINING MARKETING

Volume 45, Number 1 *March 25, 1927*

The OIL WEEKLY

Edited Weekly at Houston, Texas SPENCER W. ROBINSON, *Editor*

Field Development—Explorations

CHEROKEE COUNTY PRODUCER OPENS EAST TEXAS AREA 39
By Wallace Davis
TOTAL OPERATIONS LESS BUT MORE WILDCATS IN COAST 46
By Wallace Davis
SEAL BEACH DRILLING PROMISES EARLY PEAK 49
By Wm. V. Gross
PLAIN DEALING LOOKS LIKE ANOTHER COTTON VALLEY 51
By Staff Representative
COMPLETIONS IN ALL FIELDS FOR PAST WEEK 83
WILDCAT DRILLING REPORTS FROM ALL SECTIONS 90
PERMITS GRANTED FOR NEW WELLS PAST WEEK 98

Engineering—Technical—Research

DETERMINING BEST CONDITIONS FOR ELECTRIC PUMPING 42
By S. S. Schooley
APPLICATION OF GAS AND AIR LIFTS AT SEMINOLE 43
By George Reid
RE-CYCLING PLANTS HANDLE DRY OR WET GAS OR AIR 47
By George Reid
GEOLOGY OF THE PANUCO DISTRICT 60
By Chas. Lawrence Baker
NEW EQUIPMENT, BULLETINS, BOOKS,, ETC., OF INTEREST TO PRODUCERS 123

Statistics—Economics—Markets

CONDITIONS DO NOT WARRANT LOW PRICES OF CRUDE 31
By Kent Ridley
PREFERENTIAL USES OF PETROLEUM, PARTICULARLY GAS OIL 34
By Arthur Knapp
TANK BUILDERS KEEPING AHEAD OF SEMINOLE OUTPUT 35
By George Reid
CAPACITY OF SEMINOLE PIPE LINES ABOVE PRODUCTION 75
By George Reid
DAILY AVERAGE PRODUCTION FOR ALL FIELDS LAST WEEK 78
CRUDE PRICE QUOTATIONS AND CHANGES FOR ALL FIELDS 80

News—Features—Editorials

COMMISSION FINDS NO WASTE AT SEMINOLE 33
By Grady Triplett
GEOLOGISTS MEETING GETS UNDER WAY AT TULSA 37
By Grady Triplett
NEW MEXICO MAKES NEW RULES FOR LEASING LANDS 38
CLARKE DIES SUDDENLY AT BATON ROUGE 52
CULLED FROM THE NEWS 126
By Kent Ridley
"SQUEAKS" FROM THE BULL WHEEL 128

Published Weekly by GULF PUBLISHING COMPANY
Copyrighted, 1927

R. L. DUDLEY, *President* — A. L. BURNS, *General Manager* — SPENCER W. ROBINSON, *Editorial Director* — J. KENT RIDLEY, *Managing Editor*

Office of Publication: 1716 Dallas Avenue, Houston, Texas.

NEW YORK: Room 832, 250 Park Avenue, R. P. Swinsky, Manager. PITTSBURGH, 510 Park Bldg., W. W. Pigue, Manager. CHICAGO: 476 First National Bank Bldg., O. R. Waller, Manager. LOS ANGELES: 1201 Haas Bldg., Wm. V. Gross, Manager. TULSA: 214-218 Atco Bldg., J. F. Carter, Jr., Manager. FORT WORTH: 203 W. T. Waggoner Bldg., H. H. King, Manager. Issued Friday of each week. Single copies 10 cents. Subscription price, Domestic $1.00 a year, Foreign $2.00 a year. Subscription restricted to those engaged in the producing and pipe line branches of the oil business or the manufacture and distribution of oil field supplies. Advertising rates on application.

"OILWELL" HERCULES STEEL SUCKER RODS

"OILWELL"

Originated the Upset Steel Sucker Rod
Made from One Piece of Steel and Weldless

Features of
"OILWELL" Hercules Steel Sucker Rods

Free wrenching which saves labor and time, and also eliminates the freezing of threads. The end of the pin on all Hercules Rods is crowned to protect the first thread from damage and to facilitate easy starting of the joint.

Friction joints—Hercules Joints "shoulder up" readily and are easily locked with wrenches, thereby eliminating unscrewing in the well. The boxes are counterbored which keeps sand from accumulating on the joint shoulder when "setting up."

Fillet at pin base gives additional strength to pin.

"OILWELL" Hercules Steel Sucker Rods can be furnished in two styles — box and pin, or pin and pin with couplings. They are practical in design, sturdy in construction and efficient in service. Popular sizes are carried in stock at all district points.

Inquire at any of our 100 Branches

OIL WELL SUPPLY CO.

NEW YORK—LOS ANGELES—PITTSBURGH, U.S.A.—SAN FRANCISCO—TAMPICO—LONDON

WORLD'S OLDEST AND LARGEST MANUFACTURERS OF OIL FIELD EQUIPMENT

Say you saw it in The OIL WEEKLY

Conditions Do Not Warrant Low Prices of Crude

"Follow the leader" rule has led buyers to be influenced by opinions not their own; consumption by refiners increased

By KENT RIDLEY

EXCEPT in Oklahoma where producers affected are inclined to look toward the governmental authorities for relief from the Seminole influence and failing in that are reconciled not only to the present low prices of crude oil but also to further reductions which they see as inevitable producers of crude oil are analyzing the situation and can see no real reason for the present low prices.

The collapse of both the crude and the gasoline market in the Mid-Continent lately is apparently due to a few major oil company officials allowing the Seminole district and its possibilities to stampede them into taking drastic action. That all of these are not agreed as to the real situation is apparent, but the long established custom of "follow the leader" which has at times brought accusation of collusion between the big companies during Washington investigations, is responsible for the judgment of one set of executives controlling the actions of all of them.

The two cuts made by the Magnolia Petroleum Company, only recently ranked as a market fixer, were largely due, the opinion has been expressed, to that company being long on crude for the first time in several years. This company's expansion of producing and gathering activities has been rapid in recent months, and the parent company, Standard of New York, apparently has acquired through Magnolia expansion and control of the General, more oil than it requires for its uses.

Cuts Not Anticipated

Evidence that the second and third of the recent cuts were not anticipated by all of the major buyers is seen in the reported purchase by the Prairie of more than 2,000,000 barrels of 35 gravity oil in storage at Mexia from the Pure Oil Company. Amount and price involved in this transaction has not been confirmed by the companies concerned, but the transfer was not denied. The report is that the price was the posted figure for 35 gravity oil on the date of sale, between the first and second reductions. The two later cuts reduced the price of this particular oil 35 cents per barrel. Had the purchase been for the purpose of stabilizing the market, it is apparent that the announcement would have been made ahead of rumors, and no doubt the order would have been differently placed. Prairie evidently needed the oil for its contracts.

Low prices now prevailing for crude, gasoline and natural gasoline are causing such concern among company officials and operators in general that they have scarcely stopped to analyze the real situation. The sudden collapse of prices has caused them to wonder how it could happen so quickly, with a normal consumption of all refined products prevailing and a favorable outlook for a new record on gasoline consumption this spring and summer.

If gasoline stocks at refineries have been a factor in arriving at the situation, due consideration has not been given to the fact that since last fall the jobbers have been counseled by their association leaders to restrict their purchases, with the result that much interior storage is practically empty as compared to normal.

Consumption Increased

The low prices in themselves are calculated to cause the reaction which will send the market in the other direction within a short time. It may take a few weeks for the situation to right itself, but present prices are sufficiently out of line that an upward change seems inevitable.

Cheap crude available for the Mid-Continent refiners will greatly increase consumption of crude, an influence in this connection being that fuel oil is almost as valuable as crude, which will reduce operation of cracking units. Even some of the Standard companies plants have restricted their cracking operations and most of the indenendent plants have either closed their cracking stills or greatly curtailed. This action has practically removed the market of the natural gasoline manufacturers.

Low prices have encouraged movement of gasoline to the domestic market from the Mid-Continent and has opened markets to that section which have been closed to them for a long time by California tanker competition in the East. Mid-Continent refiners have resumed shipments in tank cars to New York and New England. However this situation will probably force adjustment of prices downward on the Pacific Coast unless the Mid-Continent situation is righted promptly.

The uncertain condition in the gasoline market for several weeks past has delayed the normal buying of the exporters. These companies are now sounding out the situation to determine the bottom level with a view of making their purchases to cover spring and summer requirements. The low prices have put these export concerns in better position to compete in the foreign markets with products from Russia, Roumania and other foreign sources of motor fuel, which should result in a larger demand for American made gasoline.

Curtailment of cracking operations increases crude consumption and also holds down gasoline production. It likewise increases fuel oil production, but there is a market for that product as long as the price competes with coal.

Further evidence that the over-supply is not so great as it looks to people close to Seminole, can be seen in the circumstance that the general policy of all major crude buyers to seek new connections in the newer fields in the Panhandle and West Texas. Many

DETAILS ON CRITICAL FIELDS

Pool—	Oil Wells Completed	Total Initial Production	Initial Per Well	No. Producing Wells	Daily Production Barrels	Daily Production Per Well	Rigs Up	Wells Drilling
PANHANDLE—								
Hutchinson County	840	459,415	542	806	108,035	135	58	181
Gray County	110	30,555	278	108	7,520	70	11	45
Carson County ..	95	29,410	310	86	7,515	87	9	72
Wheeler County ..	20	7,090	354	17	1,820	106	2	29
Totals	1,065	526,470	494	1,017	125,790	124	80	327
WEST TEXAS—								
Church & Fields .	27	20,690	766	25	9,670	387	17	37
Gulf-McElroy . ..	13	15,300	1,177	13	9,180	709	4	3
Totals	40	35,990	899	38	18,850	496	21	40
OKLAHOMA—								
Seminole area ...	302	320,957	1,062	286	303,300	1,060	38	451

producers who have the cash required are taking steps to store all or part of their production during the period of low prices, and empty tanks in all fields have been much in demand for leasing lately.

Prevailing prices will result in a substantial production decline during the next few months, and it may be the intention of the big buyers to hold down the price to discourage production long enough to make heavy inroads upon reserve stocks of crude. But a healthy demand for gasoline which will come with better motoring weather can be counted upon to start the upward trend just as soon as jobbers have to shop around for gasoline, and with cracking stills closed that will not be long.

Production Gain in West

In spite of a general drop in production throughout the territory east of the Rockies with the exception of Arkansas' slight gain, the total daily output for the week ending March 19 in U. S. fields rose 2400 barrels as a result of strong gains in the Mountain States and California, according to estimates given by the American Petroleum Institute.

Increased production at Seal Beach and Huntington Beach during the week brought California's daily average up 6100 barrels in the face of slight losses in several of the other major fields of the State. Due principally to a jump in production at Salt Creek, the Rocky Mountain section was up 5,900 barrels for the week. The only other gain in any State or section as a whole in the country was an increase of 900 barrels in Arkansas.

A drop of 6,500 barrels in Seminole was the chief source of a 1950 barrel decrease in Oklahoma. Texas, outside of the Gulf Coast territory, was down 4,100 barrels on account of a fall in Hutchinson County production. The Texas and Louisiana showed a loss of 450 barrels, while Kansas was down 350 barrels. North Louisiana showed the greatest fluctuation for some time with a slump in daily output of 2650 barrels. In Eastern States there was a drop in daily average of 1000 barrels, continuing a decline which has been under way for several weeks.

Oklahoma Expects More Cut

With another cut in the price of crude oil expected, the lines are being drawn between two groups of oil producers in Oklahoma. The situation may be designated Small Well Owners vs. Large Well Owners.

On another division it is the remainder of the State against Seminole.

Seminole is seen as the cause of recent price cuts and the cause for an impending one. Fear is the chief cause for talk of the next price cut. It is not too much to say, however, that both oil producers and refiners expect it. Some go so far as to say it will be better to have it now and get the price of oil down to bottom, so it can come back up again.

Magnolia-Gulf Panhandle Pipe Line Completed

Amarillo, Texas.—Construction work on one of the trio of crude trunk lines being built to the Panhandle district was completed during the past week, and oil is scheduled to start moving south through the system in about 15 days. The ten-inch line being built jointly by Gulf Pipe Line Company and the Magnolia Pipe Line Company from Eastland County, to the Panhandle was completed Monday when welders tied in the last section on Magnolia's end of the line between the terminus at the Connellee station, Eastland County, and Truscott, Knox County. Gulf used screw pipe on the north end of the line from Truscott to Panhandle, and filled the last gap Friday.

Prairie Pipe Line Company is reported to have about 60 miles of line remaining to be completed on its 200 mile line connecting Prairie's Kings Mill tank farm, Gray County, with Mid-Continent system at Ringling, Oklahoma. Prairie is using eight-inch pipe, and welding the joints. Progress on this line has been slowed down lately by adverse weather conditions, and operations are not expected to be underway until May. This unexpected delay has led to tank car shipments of crude resumed by Prairie from the Panhandle to storage at Mexia. Prairie has also shipped Panhandle crude in tank cars to tank farms in Kansas.

The Gulf-Magnolia line is about 230 miles in length, with seven pump stations, and Gulf will operate the north half of the line, and Magnolia the lower end. The capacity of the line is to be shared equally by the two companies. The joint line terminates at Gulf's tank farm and pump station at Panhandle, and Magnolia will pump its oil from Kings Mill tank farm via a six-inch carrier to Gulf at Panhandle. On the lower end of the line, each of the companies have connecting lines that permit direct discharge into their respective eight-inch carriers leading from Eastland County to the Gulf Coast.

Good progress has been made on Humble Pipe Line Company's 10-inch welded line from Comyn station, Comanche County, to tank farm in Carson County, a distance of about 315 miles. This line is welded, and is the longest of the three trunk lines heading into the Texas Panhandle.

Humble Pipe Line Company had early this week completed 192 miles on its Panhandle-Gulf Coast 10-inch line, all of which work has been done on the northern end of the line. Six crews are working at different points on the line, and the date of completion has been announced as not later than May 15.

ACKNOWLEDGMENT

Through a regretable error, mention of the fact that the very excellent article entitled "Geology Came to Lead Industry and Stayed to Learn" which appeared on page 37 of *The OIL WEEKLY* of March 18, was written by Mr. Wallace E. Pratt for *The Lamp*, published by the Standard Oil Company (New Jersey) to whom we are indebted for the privilege of this reproduction and to whom we express this apology for failure to acknowledge with the publication.

Magnolia Buys Land For West Texas Tank Farm

San Angelo, Texas.—Magnolia Pipe Line Company has purchased a tank farm site near Midland as the first step towards handling the crude production of the Magnolia Petroleum Company in the Crane-Upton County district, and will start a tank building program shortly. Magnolia bought 640 acres consisting of all of section 43, T. & P. Ry survey 38, Tsp. 1-S, Midland County, and is making a second land purchase to obtain trackage on the south side of the Texas Pacific Railroad.

This tank farm site adjoins Gulf Pipe Line Company's tank farm and tank car rack site, and is several miles northeast of the town of Midland. About fifty miles of pipe line will be required to connect with Magnolia's leases in the Church & Fields area, Crane County, where Magnolia has two 55,000 barrel tanks under construction.

Gulf has an eight-inch crude line connecting the Midland tank farm and the Gulf Production Company's producing properties in the McElroy and Church & Fields areas, and is making tank car shipments to Port Arthur. Gulf has four 55,000 barrel tanks completed at Midland and six 80,000 barrel tank under construction, with two tanks of the latter size on the McElroy lease.

The preliminary survey for a pipe line from Eastland County to Midland by Gulf, as announced last week, indicates that construction work on a second crude trunk line outlet for West Texas will materialize within a year. In view of the urgent need for prompt relief on transportation, it is quite likely that Gulf and Magnolia will join in building a line to West Texas, then when production justifies each will build a line straight through from Eastland County to Midland. This arrangement is being carried out by Gulf and Magnolia in providing outlets for their Panhandle crude, with each building and operating an equal part of the system.

Commission Finds No Waste At Seminole

Hearing airs controversy between large and small operators; develops lift methods are necessary

By GRADY TRIPLETT
Staff Representative

Oklahoma City.—After hearing the Seminole field portrayed from its part in bringing on disagreements between small oil producers and pipe line companies to its part in wrecking crude oil prices for the United States, the Oklahoma Corporation Commission left its decision on the question of ordering gas and air lift production methods abandoned to be given at a later date and possibly after a further hearing on the question.

The case came before the Commission Tuesday, March 22, on a complaint from the Turman Oil Company and H. H. Taylor. The complaint was that the use of gas and air lift production methods at Seminole had caused the output of the field to rise to a point where purchasing and transporting companies were unable to take care of the field's output. It developed from testimony of representatives of the Turman Oil Company that it had been compelled to shut down wells on its 80 acre lease for lack of outlet. The hearing really brought out a picture of the Seminole pool today, through testimony of Ray Collins, umpire of the field under the shutdown committee. His testimony gave present field output as 305,000 barrels daily, with 20,000 barrels daily shut in for lack of handling facilities.

Pipe line runs and tank car shipments are taking 275,000 barrels from the field, the remainder going into storage. There is no waste of oil at present and none in prospect.

The field will have 30,000 barrels of pipe line capacity added to the present figure by April 1, with the completion of the 10-inch line of the Oklahoma Pipe Line Company from Cromwell to Council Hill.

Collins Favors Producing

On a direct question as to what he thought should be done at Seminole, Mr. Collins said his opinion was *that the field should be developed as rapidly as possible without waste, so the oil could be brought to the surface, bringing prices to their low level the quicker, so they can go up.*

He styled any shut-down effort now as being too late to do any good for the present market situation.

He said four or five months of production by air and gas lift methods would deplete wells to a point comparable with several years of depletion by natural flow and pumping methods. Gas and air lift production are the cheapest production, except natural flow, in the opinion of the umpire.

His estimate was that 175,000 barrels of present daily production is due to lift methods. He expressed doubt as to the possibility of pumping Wilcox sand wells at Seminole, due to depth and sand conditions.

In regard to storage his version was that independent producers had failed to provide tankage, depending to a great extent on the capacity of pipe lines. Tank building programs, however, have been augmented sufficiently to take care of the old Seminole city pool. But it is doubtful if there is sufficient tankage in sight for taking care of the Bowlegs District to the south.

McGraw Favors Lift Methods

The question of removing gas and air lift methods got its severest blow when Henry McGraw, vice-president of the Gypsy Oil Company, developed facts concerning the uneven condition of the top of the Wilcox sand at Seminole. Mr. McGraw said sand elevations varied as much as 100 feet from one well to another.

He said wells on the high points would flow naturally, while the lower one would go dead, with the gas lift removed. This, he said would be unfair to the owners of wells at low points on the structure.

When asked by Fred Capshaw, chairman of the Commission, what he thought would be a fair way to restrict production at Seminole, he said *to stop production in each well in the field would be the only possible fair method.*

Considerable of his testimony was devoted to costs of storage, costs of air lift equipment and general costs of operation. This developed that the average cost of providing a Seminole well gas lift equipment is $12,000. To discontinue this and put in pumping equipment he said would cost $4,000 a well.

The complainant in the case, the Turman Oil Company, owns three leases of 80 acres in Seminole City, together with H. H. Taylor and others. This side of the testimony was brought before the hearing by W. T. Gilbert, receiver for the Turman Company, one of the group of Middle States companies formerly under the control of Charles N. Haskell.

The core of the testimony from Mr. Gilbert was that his company had been unable to get pipe line companies to take its oil, that it had failed to get storage, which had been promised, that it had used up available storage and had been forced to shut in some of its wells due to this condition.

He brought out that the complaint had not been filed until Seminole producers had failed to reach any agreement. A question earlier by Turman attorneys met objection when an effort was made to have Umpire Collins designate the companies which had failed to come into any agreement.

F. L. McDaniel, fiield superintendent of the Turman Company, said production had been cut on the three leases, all one tract, from 9000 barrels daily to around 5000 barrels daily. He admitted that the oil was being taken from the properties now.

The chief point developed in the estimony of J. J. Conroy, production superintendent of the Carter Oil Company, was that the removal of gas lift from wells not now flowing and the pinching in of wells flowing naturally would result in failure ever to bring these wells back to present output. This condition, he said, applied only to Seminole City proper. The Carter Oil Company has been successful in pinching in a well in the Bowlegs district, where the gas ratio is higher than in Seminole City proper. He told of instances where his own company had taken air and gas off wells in Seminole City and had failed to restore them to similar production later. Conroy said wells at Seminole could be swabbed for 500 to 800 barrels daily, while 200 barrels was the best that could be done by pumping. A soft floating sand he said, made it necessary to pull rods or tubing, often both, each 24 hours at Seminole. This sand gives much trouble in cutting cups.

Million Dollar Air Lift

In the case of the Carter Oil Company he said $1,000,000 had been spent in providing air lift equipment, this being sufficient for 30 to 35 wells. The company now has 16 wells on gas lift production. Both Collins and Conroy said gas used in the lift process was not wasted, being separated at the surface, run through natural gasoline plants and then reintroduced into the wells for stimulating flow again.

C. O. Rison, production superintendent of the Indian Territory Illuminating Oil Company, told of failure to rebuild production after taking the gas lift from a well. In one instance his company had removed the gas lift from a well making

(Continued on page 40)

Preferential Uses of Petroleum, Particularly Gas Oil

By ARTHUR KNAPP

THOSE who are inclined to undertake the role of the prophet are continually predicting a "shortage of petroleum with accompanying high prices." These predictions have been considered to be synonymous with the foretelling of a calamity. The time when this calamity would reach us has varied from a few months to a few years and the degree of severity predicted has varied from a mild business depression to a national disaster.

The industry has already passed through numerous periods which were seriously predicted to be the limiting time in which petroleum could be produced in sufficient volume to meet all demands without a large increase in price. The only calamity which has happened so far has been to the oil industry, due to an over production and not to the consumers, due to a failure of the supply.

These predictions fail for many reasons. One of these reasons is the attempt to set up arbitrary standards of economic and uneconomic uses and to guess when these uses, which have been selected as uneconomic, will be eliminated by price. No use may be selected as uneconomic on any other basis than the opinion of the user as to the value received for the money spent. The element of the convenience of petroleum is a very large factor in its use and has a great influence on the opinion of the consumer as to the value received although such convenience cannot always be expressed in actual dollars and cents.

There are no "Preferential Users" of petroleum products. Price and convenience make the selection of users and not an academic determination of what constitutes "legitimate", "preferential", or "economic" use by definition, by expression of opinion or by legislation.

The Determination of Trends

The trend of consumption of any petroleum commodity is a composite of the trend of use by a very large number of consumers. Predictions regarding petroleum in general or any particular commodity, would demand the study of the trend of consumption of the principal uses. Few, if any, of our prophets have undertaken any such studies and therein their prophesies fail.

The subject is so complicated that it is doubtful if the study of the composite consumption curve by a study of the detail consumption curves of various uses would yield results definite enough to be the basis of any predictions as to the trend of consumption of the entire commodity. This means that it is doubtful if long time prediction of the trend of consumption of petroleum commodities may be made. The study of the principal uses may lend some light, however, so that the future may not be entirely blank. Certainly there is a relation between the seasonal distribution of gasoline consumption and the sale of closed cars. There is a relation between the trend of consumption of bunker oil, fuel oil for railroad consumption, fuel oil for consumption by public utility power plants, volume of sales of house and building heating appliances and the trend of fuel oil consumption.

One of the principal factors which makes such studies uncertain of results in the determination of the price which will change the trend or limit the use of any particular class of consumer. It is difficult for any consumer of any commodity, whether gasoline, steel, wool, or eggs, to state what price is the maximum which may be paid at some future date. The changing value of the dollar, changes in the efficiency of manufacture, changes in design and many other factors may make it possible in the future to pay many times the price which is now considered to be the maximum price at which profitable operations may be continued.

Gas Oil

The use of gas oil by manufacturers of domestic gas has been classed as preferential by some and as non-essential by others.

Those who classify the use as preferential do so because domestic gas is classed very high among the essentials of modern life, also because the water-gas process is a very integral part of the gas manufacturing industry and its elimination means the readjustment of the economics of the production of cheap domestic gas.

Those who classify the use of gas oil in the manufacture of gas as non-essential are not familiar with the economics and technology of the manufacture of cheap domestic gas and think that coal gas may be readily substituted for water gas. The trend of the technology of gas manufacture is toward complete gasification of coal. In such a process, the gas produced is usually too low in heat value for domestic use and the heat value must be increased by the addition of some hydrocarbon, the most efficient being gas oil.

The consumer of domestic gas receives a value for gas oil used in enriching the lean gases which will not allow this use of petroleum to be arbitrarily classified as non-essential.

Trend of Gas Oil use

Unfortunately the gas industry fails to appreciate the value of basic statistics and detailed figures regarding the use of bas oil by the industry are not available. The trend of consumption can be fairly well established, however.

The effeciency of use in the process of manufacture has been perfected to a point where 89 per cent of the oil used is recovered in some form of valuable product, so that maximum efficiency of use has been obtained and this element will have no affect upon the trend of future consumption.

The volume of oil used per unit of water gas manufactured is directly proportional to the heat value of the gas sold since the oil is added for the purpose of bringing the heat value up to a standard. The trend of the standard heat value requirements has been steadily downward for a number of years. This means that there has been a steady decline in the volume of gas oil necessary per unit of water gas manufactured.

There is, however, a minimum B. T. U. content for domestic gas beyond which the use becomes very unsatisfactory and uneconomical. This limit has been very nearly reached, so that the trend of the volume of oil per unit of gas manufactured is very nearly horizontal and will have little effect in changing the trend of gas oil consumption in the future.

This leaves two factors which will have the greatest influence on the future consumption of gas oil for gas making purposes, one is the trend of the consumption of domestic gas and the other is the so-called elimination price for gas oil. The trend of consumption of gas is rapidly approaching the curve of population which curve is well established.

The most vital question is then, the consideration as to what is the maximum price that the gas industry can afford to pay.

The price of gas oil during 1926 approached the maximum that could be paid by gas companies under the present gas rates. As a matter of fact, the price was high enough to restrict its use in plants which could not be operated at maximum efficiency.

Prices equal the average price paid for gas oil during 1926 will materially check the consumption for gas making purposes. An increase of price over the average of 1926 would probably bring about an actual decrease in the volume consumed.

Tank Builders Keeping Ahead of Seminole Output

Survey shows approximate completed capacity of 3,445,000 barrels with 2,039,580 barrels of oil in storage

By GEORGE REID
Staff Representative

Seminole.—Steel storage in the Seminole area was approximately two-thirds full at the middle of March. This status puts the district in perhaps a little tighter position than it was one month ago, when on February 15 the tanks completed at that time were only one-fourth filled with oil.

A recent survey of the available storage in the Semiole area indicates an approximate capacity of completed tanks of the 55,000 and 80,000 barrel size, of 3,445,000 barrels. Of this available room there was 2,039,580 barrels of oil held in storage. With the fields producing at the rate of around 300,000 barrels of oil daily, it can readily be seen that there is no great amount of storage room available for future production. Pipe line companies operating in the district have a rated capacity of about 338,000 barrels daily—but all of this transportation capacity can not be included as pipe lines leading out of the field since an appreciable portion of the pipe line flow rating is taken up by those pipe lines operating within the field and carrying oil field storage. The two factors, however, of pipe line capacity and available steel storage, taken together would indicate that these facilities are more nearly adequate to handle the present production from the Seminole area than is generally supposed.

The fact remains, however, that the field is congested with oil. Some officials who have given the prevailing condition consideration are of the opinion that production must be curtailed, and to do this will require the co-operation of all operators in the district. Proposed or advocated restrictions included the removal of air and gas pressure from the field, which system is probably producing somewhere between 50 and 75 per cent of the oil coming to the surface in the Seminole area proper, which is producing about 230,000 barrels of the entire district's recently reported production of 303,000 barrels. Another step which may become necessary would consist of halting drilling activity when wells reach the Viola lime in the 8-6, or Lima pool, for this young area has every indication of becoming a second Seminole. This area constitutes the most serious problem confronting those operators who attempt to handle the Seminole situation.

Building Tanks

The intensive campaign entered upon to provide means of handling present and forthcoming production continues unabated. The hammering of the "tankee" is heard upon every side as one travels through the field, for additional storage tanks are being constructed on practically every tank farm. To assist in the transportation of oil from the area the Oklahoma Pipe Line Company (Standard of New Jersey) is rushing work on its 10-inch line to its Council Hill station and concentrating on oil storage outside of the producing districts will afford some relief after the line is completed. The Oklahoma Pipe Line Company plans to immediately begin the construction of additional 6, 8 and 10-inch lines to all parts of the Seminole area. It is expected that Oklahoma's program of tank and line building will soon effect an increase in its daily capacity from 50,000 to 75,000 barrels of oil per day. The Empire Pipe Line Company is rushing work on its new 10-inch line to Cushing from Seminole, and storage tanks are being erected to handle the increasing production of the Indian Territory Illuminating Oil Company, with which it is affiliated.

In addition to the 3,445,000 barrels, approximate, of steel storage room provided by the present completed tanks, and the 1,390,000 barrels approximate capacity of the tanks under construction, there is a proposed building program of still more tanks, as is indicated from the total of 48 grades being worked on throughout the district. The term "approximate" is used in regard to the tank storage capacity for the reason that in the estimate each 55,000 barrel tank is considered as holding that number of barrels of oil—and the same applies to the 80,000 barrel tanks. It is necessary to use these figures for calculation because the different companies all have different levels to which they fill their tanks with oil. There is no general practice, for companies vary in the amount of oil they will place in a tank as a maximum quantity.

The accompanying table indicates the status of the steeel storage as of March 15. The number of grades where work has been started for tank bases, is 48. The number of 55,000 barrel tanks building is 18. There are also five 80,000 barrel tanks building. Fifty-one 55,000 barrel tanks

Seminole Steel Storage Tank Survey

Company,	Location,	Lease,	Grades	Building	Completed	Mar. 11 Oil in Storage
Amerada	7- 9-6	Harber	7	3-55s	5-55s	203,196
Barnsdall	24- 9-6	Carter	1	1-80	2-55s	93,087
	34- 9-6	Jones	..	....	1-55	22,733
	18- 9-6		4	....	....	.....
Carter	3- 9-6	Frazier	..	....	3-55s	159,755
se	34- 9-6	Strothers	1	....	1-55	53,533
sw	34- 9-6	Cudjo	8	5-55s	2-55s	73,826
	35- 9-6	Cudjo	..	....	5-55s	257,211
Cosden	14- 9-6	Renti	..	....	3-55s	20,712
	34-10-6	Grayson	..	....	1-55	.....
Crosbie	9- 9-5		1	....	....	.....
Gypsy	10- 9-5	Peters	2	3-55s	....	.....
Gulf	15- 9-5		..	....	1-55PLTank	.....
	35- 9-6	Butler	..	....	1-55PLTank	.....
Independ't	25- 9-6		2	....	....	.....
ITIO Co.	24- 9-6	James	2	1-55	1-55	45,323
	29- 9-6	Bowlegs	..	....	2-55s	61,795
	13- 8-6	Davis	2	....	....	.....
	15- 8-6		4	....	....	.....
Phillips	9- 9-5	Graham	..	1-55	....	.....
	27- 9-6	Strothers	1	....	....	.....
PhilMack	15- 9-5		1	1-55	....	.....
Prairie	22- 9-5	Wolf	3	....	....	.....
	27- 9-6	Strothers	0	1-55	3-55s	160,500
	33-10-6	Kincaid	2	2-55	4-55s	189,440
Pure	26- 9-6	Strothers	..	....	2-55s	57,221
	28- 9-6	Strothers	4	2-55s	10-55s	423,312
Roxana	22- 9-6	Harber	..	....	1-80	.....
Sinclair	33-10-6	Youngblood	..	....	1-55	.....
	35- 9-6	Cudjo	..	....	1-55PLTank	.....
	3- 8-6	Chupco	2	.... 2-80s	1-55 2-80s	.....
Slick	6-8- 7	Doser	1	.... 2-80s	1-55 2-80s	56,648
Tidal	25- 9-6	Harjo	..	....	1-55 2-80s	89,969
Turman	3- 8-6	Cudjo (leased)		....	1-55	51,369

Totals	Grades	Buildings	Comp	Oil in Strge March 11
	48	18-55s	51-55s	2,039,580
		5-80s	8-80s	

Approximate capacity of tanks building 1,390,000
Approximate capacity of tanks completed 3,445,000

Estimated total 4,835,000
Figuring a 55 as holding 55,000 bbls and an 80 as holding 80,000 bbls., or level full.

and eight 80,000 barrel tanks constitute the present capacity of finished or completed installations. The combined total capacity of both finished tanks and those building is approximately 4,835,000 barrels.

Barnsdall's Program

The Barnsdall Oil Company plans the early construction of ten 55,000 barrel tanks in the southwest of section 18-9-6. This company's program also includes the proposed erection of two 80's in section 24-9-6 where they now have one 80 building and two 55's completed. At Okmulgee this company plans to erect five 80's. In addition it will erect ten 10,000 barrel tanks in the Seminole field.

The program of the Amerada includes the erection of 15 55,000 barrel tanks in section 7-9-6. Five are completed, three are building and seven are grading.

Empire plans the erection of two 80,000 barrel tanks on the Lacy farm in 14-8-6, and will build a pump station in section 18-18-7 as the terminus of its 10-inch line from Seminole to Guthrie. It is reported that Empire contemplates the construction of 40 55,000 barrel tanks near the town of Lima.

The Independent Oil & Gas Company plans the erection of one 55,000 barrel tank on the Knapp farm in section 9-9-5, and also one 80,000 capacity tank to be located between the 8-6, or Lima Field and the town of Maud, to handle oil from both Seminole and Lima.

Indian Territory Illuminating Oil Company which holds extensive acreage in the new field called variously 8-6, Lima, Bowlegs, or the South pool, and in anticipation of the now practically assured immense production in this district the company has begun work on its proposed somewhat extensive tank building program. In the Seminole field it is to build two 80's on its Bowlegs lease in 29-9-6, where it now has two 55's. In the 8-6 area is plans the construction of three 80's on the Billington in 22-8-6, also one 80 on the Livingston in 15-8-6, which is grading. One 80 is planned for the Walker lease in 15-8-6, which is grading, and one 80 on its Fay lease in 13-8-6, also grading. Two 80's are palnned for the Youngblood lease in 24-8-6, one of which is grading. The entire program calls for a total of 24 tanks in the 8-6 district to be constructed as soon as locations, etc., are determined and the material is available. The I. T. I. O. Compai y recently purchased from the Sinclair Company at Cushing, twenty-four 55's, and the Sinclair pipe line is taking oil from the I. T. I. O. Company tanks in sections 24 and 26-9-6, which it is delivering to the I. T. I. O. Company at Cushing.

The Philmack has recently made location for one 80 in 22-8-6. The Prairie plans installing six 55's in section 22-9-5 where it is now grading for three bottoms. Prairie is laying a six-inch line from its station in section 26-9-6 to the station in 20-10-6.

Pure Building 50 55's

The Pure Oil Company has a rather extensive storage tank construction program in addition to its present storage capacity of 12 55's completed and six building on its Strothers leases in sections 28 and 29-9-6, Seminole field proper. This company plans the erection of 25 55,000 barrel tanks in sections 16 and 17-9-6, and another installation of 25 55,000 barrel tanks for the 8-6 or Lima field. Pure Oil's Strothers lease is at present the most productive property in the Seminole area, and a recent production report indicated a daily yield of over 30,000 barrels of oil daily from 16 wells.

It is reported that the Sinclair Pipe Line Company has agreed to take 1000 barrels of oil per day from Turman Oil Company's Grisco lease in 35-9-6, and 2000 barrels daily from Philmack's Butler lease in 35-9-6. This company has also agreed to move 5000 barrels per day from the Barnsdall lease when this company's proposed tanks for section 18-9-6 have oil in them.

The American Petroleum Company's contract to take 100,000 barrels of oil, F. O. B. Seminole is practically filled at this writing, the oil having been moved at the rate of about 4000 barrels daily.

The Ozark Pipe Line Company is trading 2000 barrels daily with the I. T. I. O. Company, the Ozark tanking Seminole oil out of the field, and the I. T. I. O. taking Burbank crude at the Delmar tank farm at Burbank.

A comparison of the most recent survey of steel storage tanks of large size in the Seminole area, with a survey made one month previous indicates that the work has been making satisfactory progress. On February 15 there were ten 55's building and 41 55's completed. March 15 there were 51 completed 55's with 18 more in progress of construction. February 15 a resume showed two 80's building with six completed, while the survey on March 15 showed eight 80's completed and with five more of this size under construction

With the present building program being rushed to completion, and with the carrying out of the proposed steel tank schedules of the various companies as discussed in the foregoing paragraphs, there is every indication that producing companies will soon be in a position to handle the output of the present producing districts. "The fly in the ointment" at present, however, is the South, or Lima pool, for this productive area has a marked tendency toward the spectacular. Five to ten thousand barrel wells, it seems, are expected in the early development of the district from the Wilcox sand. The Seminole area is not declining to any appreciable extent. Earlsboro and Searight are not a factor of danger to the situation since the extent of these two pools has already been more or less marked. Lima, however, is an unknown quantity, and unless scouts, production superintendents, geologists and dope hounds are all wrong, there is every reason to expect a monster pool at Lima. Companies throughout the entire field are rushing the work of pipe line construction and tank building forward as fast as humanly possible.

Humble Testing Two Oil Shows in Austin County

Houston.—Possibilities of oil production in the Raccoon Bend area of Austin County before the close of this week loomed bright with Humble preparing to test two wells with good oil shows at shallow depths and trying to kill a gas flow of more than 1,000,000 cubic feet in a third well in order to drill the well deeper into a sand showing oil.

Thompson 2 blew in Monday afternoon of this week for more than 1,000,000 feet of dry gas from 915 feet after operators had set and cemented 8-inch casing at 902 feet over a sand showing oil. The well was drilled in about two weeks with a light rig. It is located 388 feet south of the north line and 500 feet east of the west line of the Thompson 333-acre tract.

Humble's Reese 2 topped a sand showing oil at approximately 1000 feet and drilled a few feet in. Eight-inch casing was set and cemented to 998 feet, and cement is being allowed to set before the well is tested. Reese 2 is 500 feet north of the No. 1, which abandoned last year due to a bad hole. The Reese 2 had a strong gas show at 940 feet, but the well was carried to the present depth without a test. Oil is showing in sand and shale.

The Austin College 3 picked up a sandy shale showing oil at 935 feet and casing has been set and cemented above the sand. It is located 150 feet south of Austin College 1. Austin College 2 was drilling late last week at 1250 feet in gumbo. Humble's Bellville School 1 was drilling at 1134 feet in sand shale with no show at its location seven miles east of Bellville, in the Smithers survey. This test showed oil at 915 feet but bailed dry. Humble's Washington 1, located in the E. Washington 24-acre tract, W. C. White survey, has been rigged up and is standing temporarily.

R. E. Graves' Cleveland 1, at Hickory Mound, Austin County, stuck casing at 500 feet last week when the crew was trying to set it at 1000 feet in gumbo over a gas show.

Green, Morgan & Mewis, independent operators, have made location for the A. E. Mewis 1, in the north central part of a 1750-acre tract, three miles east of Bellville. A derrick is building for the location.

Geologists Meeting Gets Under Way At Tulsa

Program is most comprehensive ever offered —entertainment reaches new heights

By GRADY TRIPLETT
Staff Representative

Tulsa.—The twelfth annual convention of the American Association of Petroleum Geologists which got under way here Wednesday morning has a program devoted largely to a symposium on the relation of oil accumulation to structure. It is perhaps the most comprehensive program ever attempted by the association and the meeting will extend through Saturday, March 26.

After the meeting proper, members and visitors are given a choice of several field trips as well as a day of fun on the 101 ranch, near Ponca City.

The program was worked up by a committee headed by Sidney Powers, chief geologist of the Amerada Petroleum Corporation. It is the longest ever attempted by the association. Aside from the papers to be read there will be more than 100 offered by title only.

The program offers something from each geological division of the United States, which some of the greater oil producing sections favored with several papers.

Due to the extent of the program, presentation of papers had to be limited and discussions also were limited.

Both during and after the convention the entertainment offered will prove a high mark in affairs of the organization. Of outstanding recognition in this connection is the promised trip Sunday to the 101 ranch, near Ponca City, where the Miller Brothers will serve a buffalo barbecue at noon.

A special train is provided for those making this trip, which will leave Tulsa at 11 o'clock Saturday, arriving in Ponca City in time for a breakfast given by the Marland Oil Company. Following the breakfast the Marland Company will furnish transportation for a trip through Tonkawa and other pools in that vicinity. The party will then arrive at the 101 ranch for the barbecue, which is to be followed by a wild west entertainment in the afternoon.

A special train will bring the geologists back to Tulsa Sunday night.

Many are expected, however, to join the party Dr. Charles N. Gold, director of the Oklahoma Geological Survey, will conduct through the fields around Ardmore Monday and Tuesday. This party will be made up at Ponca City and proceed to Ardmore by train to spend the two days in field inspection.

Those preferring to see the Seminole field will have opportunity Sunday, when an automobile trip will be made over that territory. It will be possible to make this trip and get to Ardmore in time for the two days in that part of Oklahoma.

Due to the number of members present, the scheme of holding a banquet had to be altered, so three separate banquets could be held. The Crystal Ball room of

Condensed Schedule A. A. P. G. Program

WEDNESDAY—	
10:00 to 12:00)	16th Floor—Banquet Hall
2:00 to 5:00)	Section of Paleontology; Round Table discussion.—*Henry V. Howe, President.*
2:00 to 5:00	Research Committee, Mezzanine Floor. *W. E. Wrather, Chairman.*
2:00 to 10:00	REGISTRATION, Mazzanine Floor.
8:00 P.M.	Business Committee, Mezannine Floor. *F. W. De Wolf, Chairman.*
THURSDAY MORNING—	
	REGISTRATION, Mazzanine Floor.
10:00 to 10:45	Address of welcome, Crystal Ball Room. Reports by officers Announcements of new business.
10:45 to 11:15	Nomination of officers,Crystal Ball Room
11:15 to 12:15	Technical Session, Crystal Ball Room
THURSDAY AFTERNOON—	
1:30 to 5:00	Technical Session, Crystal Ball Room
THURSDAY EVENING—	
8:00 P.M.	Business Committee, Mezzanine Floor
FRIDAY MORNING—	
9:00 to 2:00	Ballot boxes open for votes of officers, Mezzanine Floor.
9:00 to 12:00	Technical Session, Crystal Ball Room
9:00 to 12:00	Section of Paleontology, 16th Floor Banquet Hall.
12:00 to 12:45	Departure for golf tournament, Side door Mayo Hotel.
FRIDAY AFTERNOON—	
1:30 to 3:00	Business Session, High School Auditorium.
3:00 to 3:30	Organ Recital, Corner 6th & Cincinnati.
3:30 to 5:00	Technical Session
FRIDAY EVENING—	
6:30 to 9:00	Banquets in conference groups. Entertainment *"Rock Hound Revue of 1927"*, Adkar Theatre. Annual Ball, Adkar Temple Ball Room.
SATURDAY MORNING—	
9:00 to 12:00	Technical Session, Crystall Ball Room, 16th Floor.
10:00 to 12:00	General Session (Groups A and B), Ball and Banquet Rooms.
SATURDAY AFTERNOON—	
1:30 to 4:30	Technical Session, Ball and Banquet Rooms.
SATURDAY EVENING—	
11:00	Special train leaves for Ponca City from Frisco Depot.
10:00	Train for Holdenville and Seminole from Frisco Depot.
SUNDAY—	
	PONCA CITY,—Drive through Tonkawa and other oilfields; 101 Circus. SEMINOLE,—Drive through Seminole oil field.
MONDAY—	
	ARDMORE,—Field trip through Arbuckle Mountains.
TUESDAY—	
	ARDMORE,—Field trip through Healdton, Hewitt, and other oil fields, or to see geology of the Ardmore Basin.

New Mexico Makes New Rules For Leasing Lands

Minimum lease rentals set according to section of state and limit of acreage leased is set at 10,000 acres

Artesia, N. M.—State Land Commissioner B. F. Pankey has announced the following new set of rules, governing oil and gas leases effective March 23:

"The one cent lease heretofore issued is abolished and a limit of 10,000 acres is put on leases, some of which in the past have been executed for as much as 100,000 acres

"The minimum rental is fixed according to production, the State being divided into four districts: District No. 1 where the minimum is highest, being the Artesia oil field and District No. 4 the San Juan field.

"Lands within five miles of a producing well will be leased only to the highest bidder at public auction."

The new rules follow:

Rule 1.—As provided by statute the minimum first year's rental of any lease shall be $100.00.

Rule 2.—Not more than 10,000 acres may be embraced in any one lease except upon special showing of the necessity for varying this rule and with the express consent of the commissioner.

Rule 3.—Application fee shall be $5.00 for application covering 5000 acres or less and $10.00 for more than 5000 acres.

Rule 4.—The minimum annual rental which will be accepted shall be as follows:

District No. 1.—Fifty cents per acre. This district embraces townships 16 to 20 south, Ranges 26 to 39 east and Townships 21 to 26 South, Ranges 27 to 39 east.

District No. 2.—Twenty-five cents per acre. Townships 1 to 15 south and 1 to 32 north, Ranges 28 to 37 east.

District No. 3.—Twenty-five cents per acre. Townships 14 to 18 south and Ranges 16 to 20 east.

District No. 4.—Twenty-five cents per acre. Townships 16 to 32 north, Ranges 1 east to 21 west; also Township 14 north, Ranges 8, 9 and 10 west; Township 15 north, Ranges 5, 6, 7, 8, 9 and 10 west and Townships 11 and 15 north, Ranges 18 to 21 west.

All lands not within one of the above districts, five cents per acre.

Rule 5.—Leases will be made either with or without advertising and either on drilling form No. 39 or non-drilling form No. 30, as applicant may request or the commissioner may determine, the commissioner reserving the right in all cases to lease only on drilling form No. 39 or only upon advertisement and sale to the highest bidder.

Rule 6.—Lands lying within five miles of a producing or productive oil or gas well will not be leased except upon advertisement and sale at public auction.

Rule 7.—A preference will be given to applicants for drilling lease over those applying for non-drilling lease and to applicants applying for an advertised lease over those applying for a lease without advertisement.

Rule 8.—Subject to special rules governing disposition of applications received on or prior to March 22, 1927, applications will be disposed of according to the time of their receipt. Applications received in the open mail will be treated as filed at 9:00 a. m. on the day of their receipt.

Rule 9.—Applications must be accompanied by the required filing fees and the amount of the first year's rental offered and payment must be made in cash, money order or acceptable certified exchange. A separate sheet containing the descriptions of the lands applied for must accompany each application blank and the appraisement.

Rule 11.—Where simultaneous applilands which do not fall within a fifty mile square, and applicants will be required to take all lands open for lease in any section applied for.

Rule 11.—Wheer simultaneous applications are filed for the same lands they will be disposed of as the interested parties may stipulate in writing, or the commissioner may request the conflicting applicants to submit amended applications and preference will be given according to the highest rental offered.

Rule 12.—No leases will be made for non-clearlisted lands nor for any lands where the records show the Title of the State to be in question or dispute.

Rule 13.—Where existing leases are surrendered and applications made for new lease, such new lease will be made in accordance with the schedule of minimum rentals as specified in Rule 4, but in no case will a new lease be made at a lower rental rate than that carried by the lease surrendered.

Rule 14.—Where applications are filed for lands lying in two or more districts carrying different minimum rentals all such lands will be considered as falling within the district carrying the highest rental.

Rule 15.—Applications filed for lands not shown cancelled or open on the tract books will be rejected.

Rule 16.—Before a lease will be issued upon lands on which purchase contract or deed is outstanding, applicants must file a bond in the sum of not less than $2000, conditioned as required by Chapter 137 of the Session Laws of 1915. Where a greater bond is required, applicants will be so advised. Surety on such bonds may be corporate, or personal surety will be acceptable when the same are residents of and own property within the State of New Mexico and qualify in an amount equal to double the penalty of the bond.

Rule 17.—The commissioner reserves the right to reject any and all applications and to impose higher rentals, additional restrictions and requirements whenever in his judgment it shall be for the best interest of the state.

---

the Mayo Hotel, the dining room of the Tulsa Hotel and the banquet hall of the Masonic Temple are scenes of the banquets.

Division of members for the banquets have been made according to conference divisions of the schools of the country. The banquets were designated by the Big Ten, the Missouri Valley and the Western conferences. Attached to the Big Ten group were the men from the Eastern colleges. The Missouri Valley group included Texas and nearby States. The Western group included both the Rocky Mountain area and the Pacific Coast.

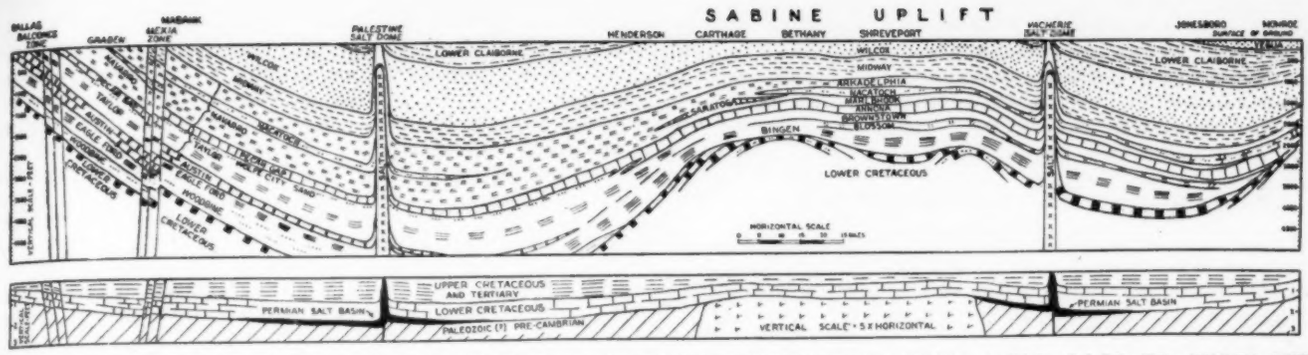
Following the banquets, comes the "Rock Hound Review of 1927," staged at the Akdar theatre. This is followed by the annual ball, also staged at the Akdar temple.

The golf tournament, which has come to be a part of each meeting of the association, is staged for Thursday afternoon. Friday afternoon there will be an organ recital in the auditorium of the Central High School.

The convention was financed by the oil concerns of Tulsa. Through a committee headed by James H. Gardner, the Tulsa Geological Society raised this fund through a system of proration of donations, according to the oil production of the oil concerns.

The week previous to the convention found the hotel committee hard put to provide space equal to reservations received by mail. Most of the hotels of Tulsa worked in harmony with this committee, striving to assure good quarters for all visitors.

S. L. Martin, chief scout of the Texas Company, at Tulsa, who is undergoing treatment in the Barnes hospital, St. Louis, is reported improving.



CROSS SECTIONS OF EASTERN TEXAS AND NORTHERN LOUISIANA CONSTRUCTED FROM WELL LOGS TO SHOW THE THICKENING OF FORMATIONS ON EACH SIDE OF THE SABINE UPLIFT AND ESPECIALLY IN TEXAS. TAKEN FROM PAPER BY SIDNEY POWERS.

Cherokee County Producer Opens New East Texas Area

Humble owns 14,000 acres around Boggy Creek well good for 5,000 barrels light oil from Woodbine sand at 3841 feet

By WALLACE DAVIS
Staff Representative

Houston.—Humble Oil & Refining Company's Elliott-Clark 1 wildcat in the M. Windsor 320-acre survey, northeastern Cherokee County, opened an entirely new territory for production in East Texas Monday, March 21, when it flowed 759 barrels of light oil during the first 12 hours through a quarter-inch choke from 3841-49 feet with all indications of being a 5000-barrel well. Gravity of the oil tested 38.6 Baume at 61 degrees temperature. The day following completion the well was holding to 525 pounds rock pressure.

Location of the well is 1638 feet west and 400 feet south of the northeast corner of the M. Windsor survey, and approximately 3000 feet east of the Neches River, the eastern boundary of Anderson county. The well is about 15 miles west and slightly south of Jacksonville, the nearest railroad point, and is four miles north of the I. & G. N. railroad running from Jacksonville to Palestine.

At the time of completion the Humble had two 1000-barrel storage tanks up near the location, and the initial production was turned into these after the well had cleaned itself. Production is being pinched into a quarter-inch flow pending construction of more storage. A feasible outlet for moving the oil in case of necessity is a two-inch line laid from the producer to the I. & G. N. track, which handled fuel to the location during drilling operations. Fuel was moved by the Humble from its Baytown refinery by tank car to Jacksonville and thence to the fuel line over the I. & G. N. A source of handling the oil after big production is obtained is probable through a line which might be laid to a branch line of the company's trunk line at Groesbeck, 80 miles west and slightly south.

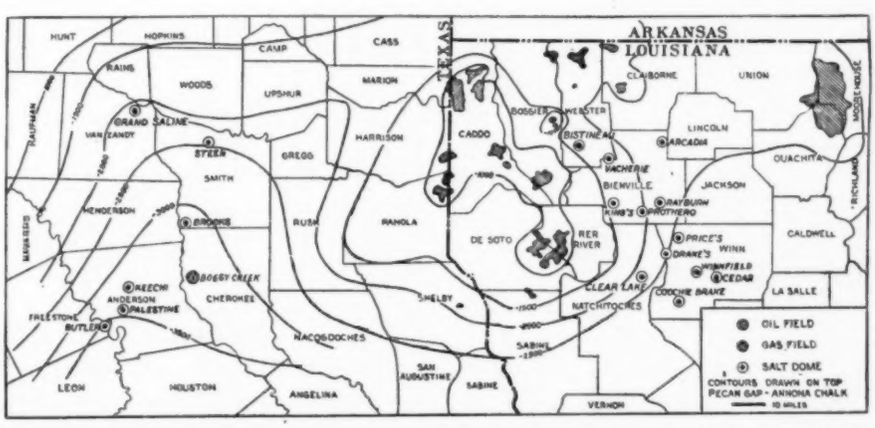
Woodbine Sand

Production in the Elliott-Clark well is coming from the Woodbine sand, which

Houston.—Humble's Elliott-Clark 1 opened an entirely new territory in the Boggy Creek vicinity, northeastern Cherokee County, East Texas, March 21, when it flowed 759 barrels, 38.6 gravity, crude from 3841-49 feet, pinched in to a ¼-inch flow with 525 pounds rock pressure. The well was shut in at 3 o'clock Tuesday afternoon, March 22, after filling two 1000-barrel steel tanks, and will remain shut in due to weak market conditions. When opened to two one-half-inch chokers the well flowed 102 barrels in one hour under test, with a 500 pound flowing pressure. When shut in the well had a 600 pound pressure. A 22-hour gauge snowed 1325 barrels on a one-quarter-inch choke. The oil is reported to closely resemble Mexia crude.

geological opinion indicates is banked against a small salt dome common in this territory but heretofore not known at this particular point. Six small interior domes in this immediate vicinity, with which geological surveys have for several years connected the presence of oil bearing sands, offers a logical situation for the source of the new production. While shows of oil have been encountered in this vicinity in various tests for some time past, this is the first commercial oil produced within a radius of approximately 75 miles. Heavy oil from shallow depths obtained in the old Nacogdoches pool to the south is probably the nearest production of value worth mentioning.

The Boggy Creek field, which has been named by virtue of the prominence of this creek in the history of the vicinity, has the earmarks of being a future major pool. Probability of production in this immediate territory has stood out as an attraction to big producers for years past, and indications of opening a pool like the



SUBSURFACE STRUCTURE CONTOUR MAP OF EASTERN TEXAS AND NORTHERN LOUISIANA CONTOURED ON THE TOP OF THE PECAN GAP AND ANNONA CHALKS (ASSUMING THEM LITHOLOGICALLY CONTINUOUS). TAKEN FROM PAPER BY SIDNEY POWERS, AND LOCATION OF BOGGY CREEK WELL HAS BEEN ADDED SINCE DISCOVERY

present one promises to be, has from time to time within the past few years, caused considerable flurry in production circles as good shows were encountered. All in all, great significance has long been attached to the presence of the interior salt domes and shows of oil in this territory, even without a barrel of crude having been produced. The geological structure of the vicinity has been a source of considerable study on the part of leading geologists over the state.

Humble has a solid block running in the neighborhood of 14,000 acres.

Humble Owns Block

This blocking arrangement means that the newly discovered area can be developed under a program of unit control, as the Humble sees fit to produce the oil. While a derrick was being shipped out of Houston for a second test shortly after completion of the discovery well it is not believed further drilling will be hurried, due both to lack of competition and the present condition of the crude market. Humble's policy on drilling will no doubt be that of keeping the oil under the ground until demand for oil justifies its recovery.

One of the biggest items in the strike from the standpoint of general operations will be the influence of the find over the other like territory in the East-Central part of Texas. While, as mentioned before, this section of the State has long been attractive to operators generally as a result of favorable geological opinions and shows of oil found from time to time, this is the first strike to prove any of the prevailing theory of the presence of pay formations in a big way. Now, if interest grows proportionately to the former attractiveness of the territory, East Texas is in for big play of an explorative nature. The scope of territory covering the six known interior salt domes will no doubt be a point of interest to wildcatters for the next few years, working on the strength of the Humble's strike as an outgrowth of years of non-return work and great expenditures by several companies and independents.

Not only Cherokee and Anderson counties might be considered in the probable lucrative wildcatting field, but the high possibility of linking of this productive area with that of Western Louisiana might include Rusk, Nacogdoches, Shelby, Panola and Harrison counties.

Furthermore, the interior dome situation to the west and north of the discovery offers probabilities of like production in Smith, Henderson, Van Zaudt, Leon and the eastern parts of Navarro and Freestone counties.

Location of Domes

The six known interior domes, which are shown in the accompanying illustration as outlined by Sidney Powers in his paper on "Interior Salt Domes of Texas" printed in the Bulletin of the American Association of Petroleum Geologists in January, 1926. The illustration also shows the location of 12 domes through Northwestern Louisiana, the nearest of which lies 120 miles east of the Steen dome of Smith County, Texas. In his paper Mr. Powers states that neither oil nor gas had been found in commercial quantities in any interior salt dome of Texas, with the possible exception of showing of heavy oil at Keechi dome, Anderson County. He also describes the Keechi dome and Brooks dome, Smith County, as being the only two interior domes of Texas which had been tested, and neither of them had been condemned except in very limited areas. From Mr. Powers' knowledge of these domes this goes to show the possibilities even around these two domes, not to speak of that of the other four domes as yet practically untested.

Houston.—Plans of the Humble for the new Boggy Creek field are to develop the dome structure with a series of tests surrounding the discovery well, and shut in producers as they are completed due to the present market condition, according to John R. Suman, Humble production head outside of the Gulf Coast territory, who returned Wednesday morning from the well. Location is now being made for the first of this series, which will be drilled as an offset to the north, on the Earle & Ragsdale land, Nathan Johnson Survey, and approximately 3500 feet south of where the Earle & Ragsdale 1 was abandoned in salt at 2612 feet.

Humble started operations in the Boggy Creek district on indications offered by surface geology. After making numerous shallow core tests, which showed up favorably, a series of deep tests was started, the third of which was the Elliott-Clark discovery well. The company's Earle & Ragsdale 1, located 1800 feet from the discovery, was dry at 2612 feet. The Temple Lumber Company 1 was also dry and abandoned at 3447 feet at a location three-quarters of a mile northeast.

Show 20 Miles East

Prior to Humble's strike at Boggy Creek the most interesting development in Cherokee was that of the Humphreys Corporation more than 20 miles to the east of Boggy Creek's present production, when this concern entered the territory to take over the operation of a wildcat test of the J. A. Colliton Interests, which was showing considerable light oil around 38 gravity. This wildcat, the P. O. Clapp 1, was finally junked when parted 6⅝-inch casing could not be recovered. The Humphreys Corporation drilled the Clapp 2, 8¼ miles east and one-quarter mile south of Jacksonville, to 4412 feet. A slight show of oil was obtained when the well was tested at 3640-50 feet, but the hole was deepened when it failed to pay. Later the Humphreys drilled the Ousley 2, the No. 1 having been junked due to bad hole, to 4135 feet in lime and abandoned it. In this test some oil was bailed from 2400-2430 feet in shale and streaks of sand and also a slight show at 3500 feet in shale. This location was approximately one and three-quarter miles west of the Clapp 2. A third wildcat, the Stafford 1, located seven miles east and slightly south of the Clapp test, was drilled by the Humphreys before giving up thte project. This test was taken to 5124 feet before being given up as a failure. One test was made of the hole at 4086 feet, which showed salt water and a little gas.

During the period of excitement over the shows in Humphreys-Colliton wildcats acreage went at high prices, reaching $100 per acre around the test, and major companies, including the Gulf, Texas, Magnolia, Humble, Pure and Republic took considerable protection acreage in the surrounding vicinity.

Faith of operators in the Cherokee acreage was again brought out when the Humble got its oil show in the Elliott-Clark wildcat, and royalties were trading several days prior to the well's completion for as high as $500 an acre base.

Commission Finds No Waste at Seminole

(Continued from page 33)

9100 barrels daily. Its highest production after reintroducing gas was 5300 barrels.

Roy Johnson of Ardmore, independent producer, brought before the hearing the plight of producers in the older fields because of recent price cuts, which he charged directly to the flush output of Seminole. While he made no suggestion that unit control be ordered by the State Commission, he cited the benefits of such development by telling of conditions where whole oil fields are under development by just one company.

His opinion was that unless oil producers find some method of preventing conditions like that existing now that some sort of governmental regulation can be expected.

Henry McGraw asked if the low price of crude did not bring corresponding low prices of gasoline, which benefitted consumers. Johnson admitted this, but added that the future advances in crude prices then had to be sufficient to offset the cost of storing and carrying oil over the over-production periods.

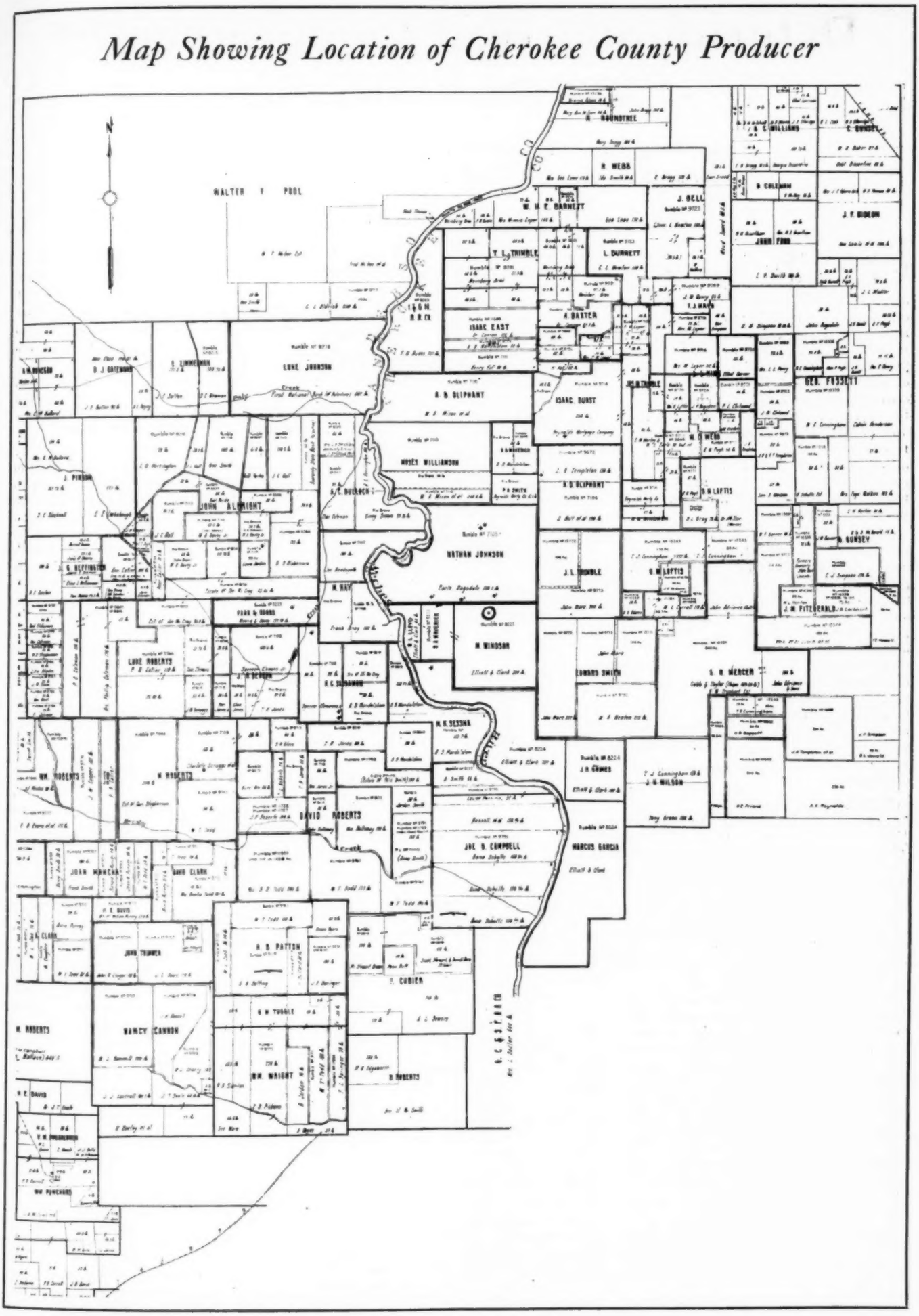
McGraw also asked what good it would do to restrict some pool in Oklahoma when no authority could be exerted over oil production and development in other states. He also stressed the unlawful phase of an agreement among producers. Johnson made the answer that it would be proper under authority of the corporation commission.

Both the Carter Oil Company and the Prairie Oil & Gas Company curtailed their own production in the past to take care of runs from customers leases according to Umpire Collins.

If the hearing can properly be styled a controversy against the major crude oil buyers against the producers without pipe lines, proceedings today seemed to favor the buyers. Witnesses testified that there is no waste of crude oil at Seminole. All is going into pipe lines or steel storage.

Nothing developed in the hearing gave any bearing on a fair method of curtailing production. Removal of the gas lift was branded as unfair, because it would stop some wells from flowing, leaving others to flow naturally.

Map Showing Location of Cherokee County Producer



Determining Best Conditions for Electric Pumping

Gathering information on power requirements of wells aids in selection and use of surface equipment

By S. S. SCHOOLEY

ONE advantage in the use of electric power for pumping oil wells, is the ease with which the power input to the motor under any operating condition may be used to give a direct indication, a registered total, or a curve showing how the power varies over a period of time. By the proper selection of instruments, information may be gathered from which the power characteristic for best well and surface equipment conditions may be determined for each well. It is also possible to use certain instruments to provide periodic records for the purpose of exercising a reasonable control of the efficiency of the power consumed at each well.

Experience in gathering information in this manner has formed part of the foundation for discussing the use of electric power for pumping oil wells. During the course of this work, first one matter then another presented itself in a manner to prompt further investigation, study and analysis. Looking back over several years of this and other investigative work, the thought has occurred, that certain definite subjects may be discussed in a manner to help the user of electricity in pumping oil wells, to understand some of the basic reasons for prevailing practices in selecting and operating various surface equipment.

With this object set out, some discussion will be given to the matter of how field information has been gathered. This will be followed by a brief statement of those subjects to be dealt with more in detail at another time. Often the mere suggestion of the mysterious word "electricity" creates some misgiving. However, the men who operate electrically equipped leases, soon become quite enthusiastic about this sort of oil field power, forgetting the mystery.

It is far from the purpose of this presentation to lead to the notion that considering the matters discussed it is necessary to put an electrical engineer on every lease to get the benefits of these matters. Most of the subjects to be considered cover matters of importance to any sort of oil field power. Therefore the subject might reasonably be changed from "Pumping Oil Wells Electrically" to "Determining Best Oil Well Pumping Conditions By Use of Electric Motors."

Preliminary Survey

In making preliminary surveys of leases where electric motors are in operation, as much general information relative to the use of power is noted as may be taken by simple observation and conversation. This includes depth of well, diameter of tubing, and rods, general conditions of well, pumping time, production of oil, water and gas, style of working barrel, kind of pumping motion, style of rod hanger, condition of bearings, that is center irons and jack-post boxes, condition of rig supporting these bearings, condition of pitman, nature of any special devices used as rod rotors, straight lift appliances or long stroke equipment.

Counter-balance data includes the distance of pitman, rod hanger and counter-balance hanger from the center of the center irons; an estimate of the weight of the counter-balance and its effect on the rods, considering the proper distance ratio; the nature of the pony beam or other device supporting the counter-balance, and the kind of motion of the counter balance.

Power transmission observations for the standard rig cover size of motor pulley, pulleys on the counter-shaft and size of bandwheel; size of rig irons; size, kind and condition of motor and main drive belts; relative position of motor and counter-shaft. Where chain or gear unit drive is used, general information covering style and ratio is taken.

Facts relating more directly to the motor include style and rating of motor, speed as operating, number of strokes or revolutions of the rods, length of stroke, controller position for the stroking speed used, condition of motor as whether heating and relative variation in speed throughout one revolution of the rods, average horsepower input to motor, voltage of power line at motor and variation of power over one pumping revolution as determined by ammeter readings or charts taken from a curve drawing wattmeter.

Electric Testing Outfit

A simple arrangement of electrical instruments may be assembled on a box in the rear seat of a Ford touring car. Average power is calculated from readings taken from the ordinary integrating or registering kilowatt-hour meter such as is used to measure the customer's power consumption. For long periods of time, the register reading is used. For short periods, the time of rotation of the dampening disc is used. An ammeter is used near the curve drawing wattmeter on top of the box. The necessary instrument transformers are fastened inside the box out of the way. All connecting wires are arranged to remain in place in the car when moving from place to place. The test set is connected into the line cut-out switch inside the motor house with a set of cables fastened together and permanently connected to the instruments in the Ford. While working from well to well, all instruments are left in place. Only a few minutes are required to connect and disconnect the cables at the switch. When the meters are removed for safety it is necessary to remove a few jack, plug and screw connections. The use of the Ford and instrument assembly provides for ease in setting up and making tests.

During the first tests made, an ammeter only was used. An attempt was made to study the nature of the power input to the motor by the following plan. The crank pin circle was divided into 12 equal positions. Starting with the crank at the upper dead center, each position was numbered. One man stood opposite the crank and called out each position by number. At the same time another man noted the amperes current input to the motor by reading the ammeter. In order to bring the reading and crank position as near together as possible, only one position was noted for each revolution of the crank, and that position repeated at least twice in succession. This plan gives fairly accurate readings of the current variation at the motor for the different points or events for a complete revolution of the pump plunger. However, it is a very crude method compared to the use of a curve drawing wattmeter. The latter provides a permanent record at the time the equipment is being operated. Instantaneous variation in power conditions are easily compared. It is especially valuable in working over counter-balance conditions.

The writing mechanism of the wattmeter draws the curve on a continuous chart. The chart is about six inches wide. A clock operated device unrolls or travels the chart under the pen and rolls the recorded part into a tight roll inside the instrument. The scale on this record is indicated in terms of kilowatts when the instrument is used without transformers. Actual horsepower input to the motor is used in this discussion, as determined by applying the proper factors, according to the transformers used. One of the most important features of this particular instrument is the number of rates of chart travel that may be used. If a chart is desired to show the general conditions over several hours or days time, it is traveled at three-fourths, one and one-half, three, six or twelve inches per hour. In studying instantaneous changes in power, a lever is shifted so that the speed is changed to these same values per minute. Six inches per minute generally gives a

(Continued on page 53.)

Application of Gas and Air Lifts At Seminole

By GEORGE REID
Staff Representative

Since development of gas and air lift methods at Seminole has reached the stage that methods and results can be talked about intelligently, we have assigned George Reid to write a series of articles dealing with the situation there.

Mr. Reid, who is a regular member of the staff of the Gulf Publishing Company publications, has recently been transferred from California where he had contact and experience, both as a correspondent and in his work as an engineer, with the development of lift methods there. This experience gives him a quick insight into the developments of the technicalities of air lift as they apply particularly to Seminole.

GEORGE W. H. REID

This field is the first instance where artificial flowing methods have been applied to wells so early after completion, and sand conditions there are such that the use of this method is imperative, according to operators.

Results at Seminole will no doubt have influence upon developments in other fields, which makes this series of articles of particular value, not only at this time but for future development of engineering in the oil fields.

Methods Used By Indian Territory Illuminating Oil Company

APPLICATION of the air and gas lift systems to the artificial flowing of oil wells in the phenomenal fields making up the Seminole area in Oklahoma comprises one of the most interesting features of the district's development. Gas and air lift first made its appearance in this area in the fall of 1926. In the following few months the successful installations of the pioneers of this method of oil production practices have been conducive to the application of artificial flow methods to the extent that nowhere else in the producing fields of the United States, is gas and air lift so extensively employed. Virtually every producing company operating in the four pools in the Seminole area is flowing wells on the compressor. A resume on February 28 disclosed the fact that on this date there were 97 wells on the compressor out of a total of 210 producing wells, in the Seminole field proper. No figures were available covering the pools of Searight, Earlsboro and Lima.

It is not within the scope of the present writing, however, to deal with the general application of air and gas lift in this area, as this subject will be discussed later. The operation practices and methods of individual companies are of interest, and the installation and use of various types of equipment for the production of oil by air and gas under pressure will be discussed in the first series of articles.

The Indian Territory Illuminating Company, which discovered the Seminole field when it completed its first Hunton Lime well on March 12, 1926, was among the first of the producing companies to realize the advisability of experimenting with the air lift system for the production of oil in this field. Engineers with the I. T. I. O. Company were, in fact, positive that the air lift was essential to the successful production of oil in the field, if good economy of production was to be secured.

First Installation

Early in the fall of 1926 the I. T. I. O. Company installed its first compression plant on its James lease, Section 24, T. 9, R. 65, in the Seminole pool. This plant is shown in Figure 1. The compressor installation consists of five Clark Brothers 80 horse power, size 14-7½ by 20 machines. This is an air plant, and supplies compressed air at a pressure of around 300 pounds for the artificial flowing of two wells on the James lease, and for one well on the company's Bowlegs lease. The compressed air is conducted through a header line from all machines to the manifold shown in the photo just outside of the engine house. At the manifold the air is distributed to the individual wells being flowed through separate two-inch lines leading to the well. The company has five wells on the James lease, with one drilling, which are producing around 1800 to 2500 barrels of oil daily according to late reports. Production figures for all companies and all individual leases vary, of course, according to the days status of the separate operations.

In Figure No. 2 is shown the connections at the I. T. I. O. Company's James No. 7. This well is 4100 feet in depth. The air is conducted into the well through the 2½-inch tubing and

the oil is forced out of the well through the 6⅝-inch casing. A six-inch line from the well conducts the mixture of oil, gas, and air to the separator. In Figure 3 is shown the battery of 14 1000-barrel Perfection Vapor Pressure run tanks, which is one of two such batteries erected side by side on this lease, and the two Smith Separators which are handling the production from the two wells operating under the air lift system. The separators are located some little distance from the wells, but centrally located in the lease and very close to the run tanks. The mixture of air and gas leaving the separators after being liberated from the oil, is taken to a near-by absorption gasoline plant where the gas is stripped of its gasoline.

Up to the present the air content of the natural gas derived from gasoline extraction purposes has never reached the danger point. Repeated tests have shown the gas to have an air content of less than 30 per cent. Perhaps the time will come when the gas production is so low that the air content of the gas from these wells will become too high for safe handling through compressors and the gasoline plant. Under such conditions the general field practice is to vent the air from the well into the atmosphere, from the separator.

Wells Put on Air Early

It is the practice with this company, as it is with practically all of the operators in the field, to install the gas or air lift on any well that ceases to flow naturally. The flowing time of wells in the Seminole field is usually a matter of a few weeks. It is estimated that the gas-oil ratio in flowing wells at Seminole is around 500 cubic feet of gas per barrel of oil when the well is flowing. This figure may vary somewhat with different wells in different parts of the field. However, the greatest number of wells will continue to flow naturally when the gas production is around 500 to 525 cubic feet per barrel of oil especially in that part of the field under discussion. When this gas production decreases and the energy is somewhat expended, then the well ceases flowing. There is still potential gas production in the well, but not sufficient to cause flowing. Then the gas lift or air lift is essential to make up the deficiency. Air of gas under pressure must be inserted into the well in sufficient quantity and pressure to make up the difference when the gas-oil ratio falls too low and the well quits flowing. Thus if air is used, as in the case of the two wells mentioned on the James lease above, it is required for a time in such small quantities that the gas production from the well may continue to be of value to the gasoline extraction plant for some time.

At the time of the writer's visit the I. T. I. O. Company with 22 producing wells on its four leases in the Seminole field proper, was artificially flowing 12 of them. The air forced into these wells ranges for individual wells from 200 to 300 pounds pressure to cause flowing, and the volume ranged from 300,000 cubic feet to around 1,000,000 cubic feet daily per well. The production of oil from these wells ranged from 500 barrels to 1800 barrels per well. These conditions are, of course, constantly changing. The company's Seminole production was recently quoted at around 15,500 barrels from five leases.

In addition to the compression plant on the James lease the company also has three more installed on its other properties. The plant on its Goodwin lease is employed to flow four wells on air. Seven Chicago Pneumatic compressors, size 10- 4½ by 10 inch, belt driven by 75 horsepower General Electric motors are installed for flowing these wells by the air drive. A recent published report quoted production at about 1300 barrels. The location is section 23, T 9, R. 6—in the northern part of the field.

Other Installations

The other two I. T. I. O. Company compression plants for air and gas lift purposes are located on its Harjo lease in section 23-9-6, and its Bowlegs lease in section 26-9-6. The Bowlegs plant will be discussed in a separate writing. The Harjo plant originally consisted of three Chicago Pneumatic compressors belt driven by 75 horsepower General Electric Motors, with electricity at 440 voltage for power. Figure No. 4 illustrates the method of hook-up for this type of plant. The Harjo plant is at present being enlarged by the installation of 4 Clark Brothers machines, Type S, 80 horse power, size 16-14—7¼ by 20 inches. This installation in the course of construction is shown in Figure 5. The plant is at present an air type installation, but the newer equipment is being installed to operate on either air or gas.

The three compressors at present in operation are flowing two wells on the Harjo property, and at the time of the writer's visit the third well was being put on the compressor. All three of the compressors in operation discharge into one header line which conducts the air to the two-inch manifold outside of the building. This manifold is shown in Figure 6. It is so arranged that any one compressor, or two, or if necessary all three compressors can be made to discharge the compressed air to one well. The air may be diverted to any well or wells at the will of the operators whenever necessary—also any well may be cut out and taken off the air lift by the manipulation of the valves at the manifold.

Taking wells off production of course, makes it necessary to shut down one or more compressors if the air is not required or can not be used elsewhere, but this becomes a simple matter of pushing a button when compressors are driven by electricity. The method of manifolding the air at the compressor house lends greater flexibility to the installation. The American relief valves shown in the illustrations are set at 1000 pounds pressure, and the installation is protected to this limit of pressure by the use of heavy fittings throughout the equipment.

In the background of Figure 6 can be seen the accumulator tanks installed for the collection of natural gasoline when the Clark plant under construction becomes operative on natural gas. The collection of this compressed gasoline becomes almost essential to operation when wet gas is forced into the wells for it has a tendency to cause freezing in cold weather and to impede the flow of the gas in the system. The accumulator tanks are installed adjacent to the cooling coils under construction.

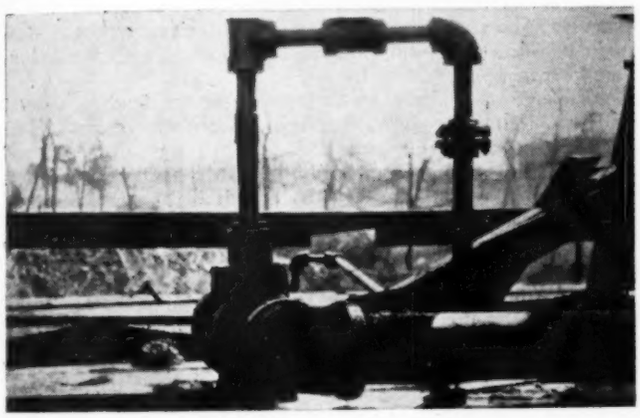
With the placing of the third well on the compressor the company will have but one other producer on the Harjo lease not operating under the air lift. This lease was recently reported to be producing around 27,800 barrels of oil from its four wells.

The Indian Territory Illuminating Oil Company, while laying no claim to actual leadership in air lift installations and operation, has however, been engaged in the air drive system of artificial production for some months in this field. This company was among the first to secure balanced production in this manner in the field, but after several months of successful air lift operation they state that there are no set or arbitrary rules of procedure when a well must go on the compressor. Each installation is an individual problem, and the hook-up that was highly successful on one well may very likely be a failure on one just off-setting it. With 22 wells producing oil at the present time, and with 12 of these producing very satisfactorily on the air lift the company is maintaining its daily production at a very satisfactory figure. In addition to being fully equipped to flow those wells now producing and ready for the air system, the company is also installing additional equipment enlarging some of its present plants, and is installing other compressor plants on its various leases for the purpose of taking care of its future production as it is drilling in and as it becomes necessary to turn to the air or gas lift for restoration of pressures.

Equipment and Hook-up on I. T. I. Lease

FIGURE 1
INDIAN TERRITORY ILLUMINATING OIL COMPANY'S EARLIEST COMPRESSION PLANT ON ITS JAMES LEASE IN THE SEMINOLE FIELD. (Right)

FIGURE 3
BATTERY OF 14 RUN TANKS AND SEPARATORS ERECTED ON THE HARJO LEASE. (Below)



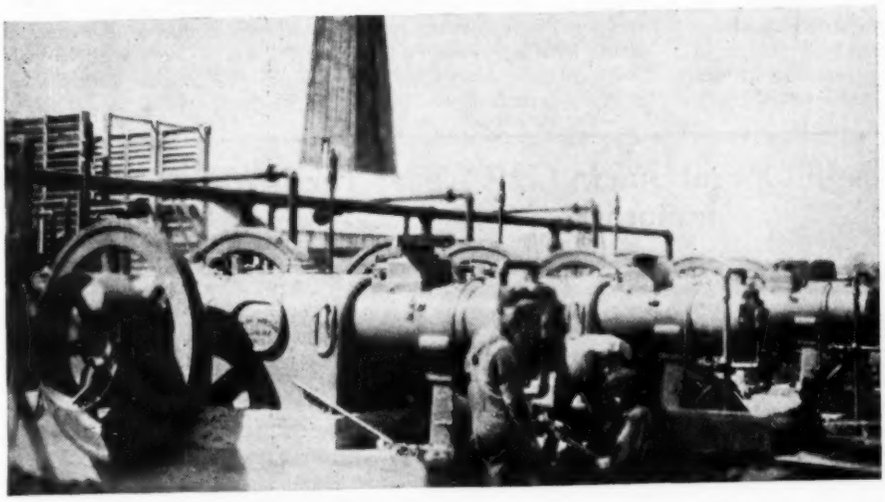


FIGURE 2
CONNECTIONS AT THE JAMES 7, FLOWING UNDER AIR LIFT. AIR ENTERS THROUGH THE TUBING. OIL, GAS AND AIR MIXTURE FLOWS OUT THROUGH THE CASING. (Above)

FIGURE 5
ADDITIONAL COMPRESSOR EQUIPMENT BEING INSTALLED ON THE HARJO LEASE, TO BE USED FOR EITHER GAS OR AIR. (Left)

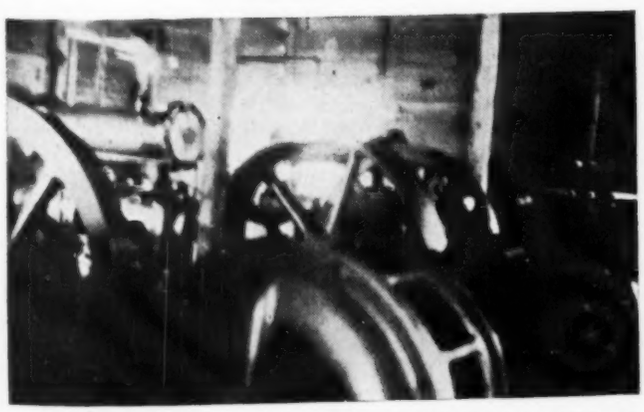


FIGURE 4—MOTOR DRIVEN COMPRESSORS ON THE HARJO LEASE

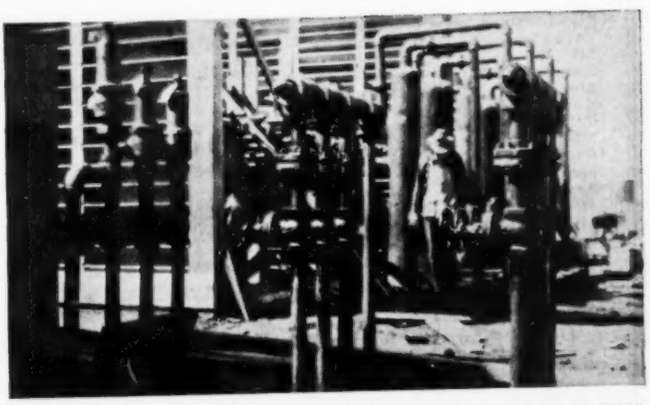


FIGURE 6—MANIFOLD FOR HANDLING AIR AFTER COMPRESSION AND DIVERTING IT WHERE REQUIRED

Total Operations Less But More Wildcats in Coast

By WALLACE DAVIS
Staff Representative

WHILE the recent break in the crude market has not had reasonable time to greatly affect drilling progress, there has been a drop of 24 active wells in the total number throughout the Texas and Louisiana Gulf Coast territory from February 1 to March 20. For the week ending March 20 there were 230 wells either drilling or rigging up in this section of the country.

This slump in activity is accounted for wholly by a falling off in drilling by small companies and independent operators. This group of operators, classified in the accompanying table as miscellaneous, had only 49 active operations for the past week against 74 on February 1. Spindle Top field stands out as an example of the biggest loss of drilling by miscellaneous operators during the period of one and one-half months, only three inside wells being drilled by independents against eight for February 1. There were only two wells drilling at Vinton last week as compared with seven on February 1.

While wildcat operations in Southern Louisiana showed a decided drop last week as compared with February 1, there being 18 against 26 respectively, the Texas coastal country showed an increase of from 10 to 17 during that period.

Texas Wildcating Increased

From the general trend of present activity, there will be an increase in wildcat activity in the Texas Coast rather than a slump in exploration work as a result of the reduced crude prices. The only plausible reason for this move is to use shutdown rigs in old proven territory to drill for new productive territory. Since March 1 there have been eight wildcat locations made for immediate drilling. Territories now drilled for the past year are now coming into play again. Humble Oil & Refining Company made location last week for its Warren 1 at Hockley, Harris County, after the last operations at this point were closed down early in 1926. Gulf last week made two new wildcat locations at Hawkinsville dome, Matagorda County, including a test on the Parkinson land and one on the Sanborn land. Gulf also made location for Thomas 10 at Fannett, Jefferson County, early this month, making three active rigs there as compared with one on February 1.

J. O. Davis et al are drilling a wildcat test recently started about 8000 feet west of the deep sand production at Spindle Top. Hines Brothers have started their second test on the Parker land on the east side of Spindle Top dome following the abandoning of the Parker 1 late in February. Gulf continues running four rigs at Long Point, Fort Bend County. Three wildcat operations are running at Stratton Ridge, Brazoria County, as compared with one, the Gulf's Perry 1, on February 1. Associated Oil Company's Seaburn 1 and Pure-Humphreys Corporation's Armstrong 1 have both started within the past month in an attempt to open production at this old dome, which his thus far failed to pay commercially.

In Montgomery County Brain Oil Company has resumed operations on its Fitch 1, three miles east of Spring, after being shut down for several months at 1900 feet. Beard et al have made location for the Beard 1, 15 miles east of Conroe, Montgomery County, for immediate drilling. Green, Morgan & Mewis have a derrick up three miles east of Bellville, Austin County, for the Mewis 1, making a total of eight tests for Austin County as compared with six February 1.

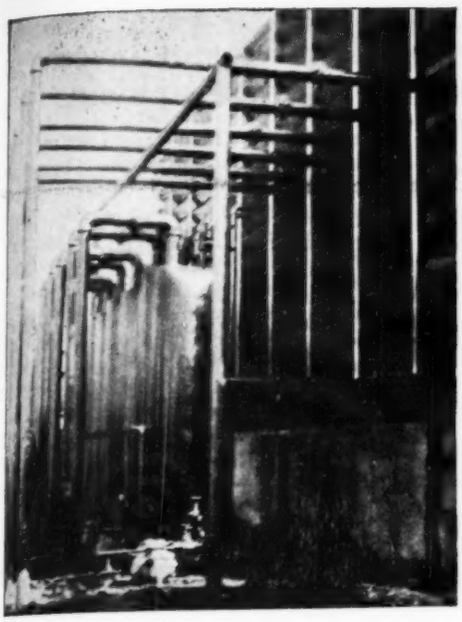
The Gulf continues to lead in Coastal operations with 57 active rigs against 61 February 1. The Texas Company and Humble showed little fluctuation as compared with that date, having 12 and 17 rigs active against 13 and 15 as of February 1, Yount-Lee Oil Company had only 16 rigs running last week as compared with 21 of 50 days ago. While this company had a half dozen new locations made for wells at Spindle Top it was not definite that they would be drilled in the near future due to the break in the market.

Lockport field last week stood out as one of the most active fields in the Gulf Coast with 12 wells drilling due to recent strong production obtained from several wells.

Field Operations in Gulf Coast Territory on March 20 Including Drilling Wells and Rigs

Company—	TEXAS																											LOUISIANA							
	†Austin Co.	Barbers Hill	Batson	Big Creek	Blue Ridge	Boling	‡‡Brazoria Co.	†Fannett	Goose Creek	†Hawkinsville	High Island	Hull	Humble	†Long Point	Markham	Nash Dome	Orange	Orchard Dome	Pierce Jct.	Piedras Pintas	Saratoga	Sour Lake	So. Dayton	So. Liberty	Spindle Top	W. Columbia	§Wildcats	Eagle Point	Edgerly	Evangeline	†Hackberry	Lockport	Starks Dome	Vinton	Wildcats	Totals
Gulf	..	..	2	5	6	1	1	3	2	3	2	5	1	4	..	..	2	2	3	..	..	1	3	..	6	..	..	2	1	..	..	..	2	..	..	57
Humble	6	..	..	..	..	..	..	..	4	..	..	..	..	..	..	..	1	..	..	2	..	..	1	..	..	..	3	..	..	..	..	..	..	..	..	17
The Texas Co.	..	..	1	1	..	2	..	..	..	..	..	2	3	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	1	12
Yount-Lee	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	12	..	..	..	..	..	3	..	..	..	..	16
Union Sulphur Co.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	4	..	..	..	2	7
Roxana	..	..	..	..	..	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5
Rycade	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	5	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	9
Rio Bravo	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	..	1	..	..	..	2	..	..	..	..	..	..	..	..	..	..	7
Vacuum	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12	..	..	..	13
Atlantic	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	2	..	1	..	..	..	..	..	..	..	..	4
Sun Company	..	..	..	..	..	1	..	..	..	..	2	..	1	..	..	..	..	..	..	..	..	..	..	..	5	..	1	..	..	..	..	..	..	..	..	10
Abercrombie Drilling Co.	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Marland	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Pure Oil Co.	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2
Navarro	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Republic	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Magnolia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	2
Associated	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Humphreys Corp.	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Mills Bennett	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Kirby Pet. Co.	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Border Research Corp.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	6
Miscellaneous *	2	..	1	..	1	2	..	..	1	1	..	2	1	..	2	..	2	..	2	1	..	3	..	1	3	..	11	1	2	1	..	..	..	2	7	49
‖Totals	8	3	5	6	10	8	8	3	7	4	4	11	7	4	4	5	6	2	11	3	1	6	5	1	32	1	17	3	3	1	7	12	2	2	18	230

‡Includes Stratton Ridge, Allen Dome and Clemens Dome. §Includes Brenham, Palazana and Moss Bluff. *Includes small companies and independent operators. ‖38 or 16 per cent of these wells are workovers. †Points of no commercial production not listed under wildcats due to extensive centralized development.



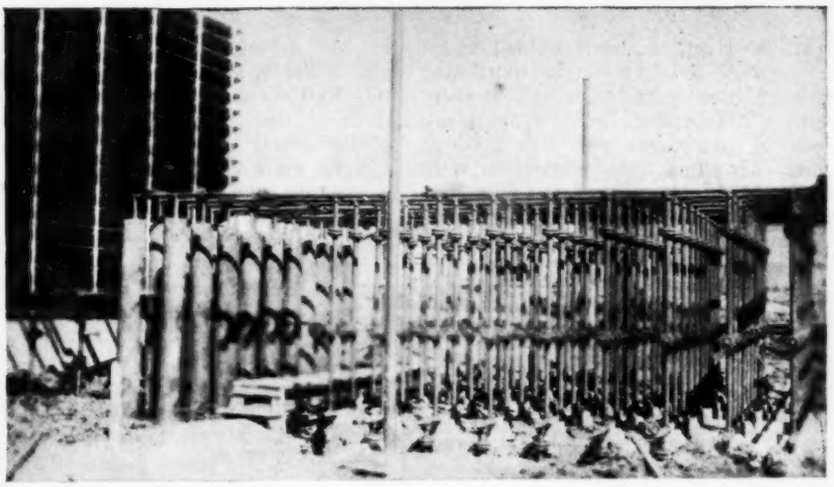


FIGURE 1—THE I. T. I. O. COMPANY BOWLEGS COMPRESSION PLANT IS DESIGNED TO OPERATE ON EITHER DRY OR WET GAS OR ON AIR. THE ACCUMULATORS SHOWN ARE FOR THE COLLECTION OF GASOLINE PRODUCED WHEN THE MACHINES ARE COMPRESSING WET GAS.
FIGURE 2—MANIFOLD INSTALLED FOR CONTROLLING THE DIRECTION OF FLOW OF COMPRESSED AIR OR GAS TO THE POINT WHERE IT IS NEEDED. THIS INSTALLATION TAKES CARE OF THE AIR FROM TEN COMPRESSORS.

Re-Cycling Plants Handle Dry or Wet Gas or Air

I. T. I. O. installation is example of type of construction and operation at Seminole and difficulties met in installation

By GEORGE REID
Staff Representative

Seminole.—Like many other operators in the Seminole fields the Indian Territory Illuminating Oil Company is erecting, and operating, compression plants for air or gas lift work which will handle green or wet gas for recycling to the oil sands. This practice entails the actual construction of an old style compression type natural gasoline plant, for in the compression and cooling of the wet gas the gasoline is inadvertently extracted and condensed. In a sense these plants might be listed as gasoline plant installations, but since their primary purpose is for the recycling of natural gas to the sand for the purpose of artificially flowing the wells, they are essentially only gas lift plants. Later, perhaps, as the field develops and conditions grow more settled, the gas lift plants will enter the lists of gasoline installations, being installed for a dual purpose.

Several of these plants are connected and hooked-up in such a manner that they may be speedily converted from the compression of natural gas to the handling of compressed air whenever such a change is necessary. The Bowlegs gas lift plant of the I. T. I. O. Company is such an installation.

The air-gas lift installation of the company on the Bowlegs lease is a complete compression gasoline plant with all of the conjunctive equipment necessary for such operation. In addition, it is designed and constructed for the purpose of compressing air for air lift, and it is now operating in the air lift work. Two stage Clark compressors, six in number were installed as the second unit of the installation. These are size 14 by 7½ by 20 inches, 80 horse power, with a 500 pound rated maximum pressure. The machines are set on heavy concrete bases.

Work began on the construction of this plant on January 5. In exactly 50 days of construction the plant was put in operation. At the time of its installation the company needed this plant and needed it badly, so it was rushed to completion.

Record Construction Job

Fifty days working time on the construction of a compression gasoline plant of this size would have been a fair record of achievement in the summer months and perhaps under ideal working conditions. But in the Seminole at that time the prevailing conditions were anything but good. First, there was no road, for the winter rains and snows were almost incessant. Seminole oil roads need no description other than that during the winter months they were a sea of mud and at places, bottomless. Labor was scarce during the cold weather, and this item was of much importance. The field was terribly congested and the problem of securing delivery of materials was no little item for consideration. Such material as the lumber for buildings, cooling towers, the pipe for cooling coils, for air lines to the wells and flow lines to tanks, the tools with which the work had to be done, the great number of fittings, the great number of other items essential to the plant construction program, as well as the six heavy compressor machines, all had to be "snaked", dragged, pushed, or pulled into the field and to the plant site by truck, tractor and mule. Yet the plant went into operation 50 days after the first work was started.

At one time the men were engaged in pouring the cement foundations for buildings and compressors, when the weather suddenly turned exceedingly cold and was accompanied by a continuous shower of sleet. The work was then going forward in two shifts, night and day. During this spell, however it was necessary to continue the pouring of the concrete regardless of the exposure of the men to the wet and cold. This task was accomplished by putting on another crew. A large fire was kept going in a nearby metal house and while one crew carrietd the work forward for 30 minutes, the alternating crew was drying out by the fire. Alternating in this manner throughout the night, the work was completed and the material out of the way so that the day crews coming on could proceed with the other construction.

Another interesting item in regards to the construction of this plant is the results of the welders activities. The cooling coils, which are two-inch with welded bends, 16 feet in length, and consisting of about one mile of pipe, as well as a great deal of the underground lines

about the plant, were all welded under the pressure of the rush in completing the installation. It is estimated that there are over 2000 separate welds in the plant. Much of this work was also done at night. Yet when the welding jobs were tested with pressure there was only four leaks of a minor character in the entire assembly. These four were located very close together, which indicates that perhaps one welder became too numb with cold to do his work perfectly. Four leaks out of 2000 is not a bad ratio, however.

Simple Change Arranged

This plant, which is both a compression gasoline plant and an air compression plant, as required, is designed and constructed in such a manner that the switch from air to gas or the reverse, may be accomplished within a very short time. The air and gas lines both enter the compression plant to join just above the intake of the machines. All of the air lines are painted black, while the gas lines which connect into the intake line of the machines are equipped with a heavy duty valve, and these valves are all painted brightly red. When it is necessary to change from gas compression to air, all of the red valves are closed tightly, and all of the black valves on the air lines (one to each machine) are opened. In the meantime it is necessary to vent the lines of air or gas, whichever is present, to eliminate the explosion or fire hazard. Vent lines and valves are also provided. The plant is at present working on the compression of air for flowing the company's wells on the Bowlegs lease.

The original plant on this site and which is also in operation on the air lift at present consisted of four Chicago Pneumatic compressors, size 10 by 4½ by 10, which are belt driven by General Electric 75 horsepower motors. Thus at present the company has in operation on this site, 10 compressor units. In addition to these already in operation there are three more Clark Brothers 80 horsepower machines being installed.

In Figure 1 the installation of accumulator tanks for the collection of compression gasoline when the large plant is operating on wet gas, is shown. These tanks are welded throughout, provided with gauge glasses in the usual manner and with blow-off lines for the removal of the gasoline to storage as it is condensed. The six lines above conduct the gas into the water sprayed cooling coils. Such lines and coils are provided for the purpose of cooling the gas or air between the low stage (about 50 pounds pressure) and high stage (around 200 pounds) and for cooling again after the high stage compression.

Figure 2 shows the manifold installed for the control of the gas in its direction of flow after the second cooling and at the point where it is diverted into whatever well or wells require it. This consists of 10 manifolds and takes care of all of the compressors now in operation. Through this installation any portion of the compressed air from the machines may be directed to whatever point is necessary. If a certain well requires the output of two or three compressors, all that is necessary is the opening and closing of certain marked valves which causes the flow of air to be directed to the well desired. This practice lends flexibility and simplicity to the operation of the plant.

Even though the plant is but a few weeks old, and has been but recently completed, the operators have given it a fresh coat of green paint with a bordering trim of white—which adds greatly to the appearance of the installation. The yards are being rapidly cleared of debris and clutter and every effort is being made to put the installation in the best of order.

Building Three Plants

In the South pool, or what is more or less variously termed as the Bowlegs field, the 8-6 pool or the Lima field, the I. T. I. O. Company is installing three compression plants for the operation of its wells on the air-gas lift system. The plants are going in on the Goforth, Davis, and Livingston leases. One plant is a Bessemer installation while the other two are Clark Brothers. The present schedule calls for the installation of the equivalent of 30 80-horsepower units, or sufficient units to flow 30 wells. The company expects to drill 50 wells in this area, and as past experience has pointed to the advisability of the early installation of air lift plants, the company is getting ready for the air lift work which will no doubt be required in the south district.

Wilcox sand wells do not have a high gas-oil ratio, and although they come in with very high initial production, they do not usually flow for a great length of time. A great number of large wells, producing five to seven thousand barrels of oil daily in the Seminole fields have maintained their high average flush production for a few days or weeks, then to suddenly stop and die, and where as, yesterday, for example the well flowed 4000 barrels, to day it flows nothing. Then is the opportune time to put air or gas pressure on the well and bring it back into production by supplying the necessary balance of gas or pressure to cause it to flow. Because of the fact that there is usually little or nothing to indicate that a well is going to quit flowing, operators in the field have made it a practice to wait until its does stop before applying the gas or air lift.

New Production Area 13 Miles From Maljamar

Artesia, New Mexico.—Possibility of opening a new productive area 13 miles east of the Maljamar discovery well is good with 800 feet of oil standing in the Ingelfield Bridges wildcat, coming from a brown sandy lime at 4704-09 feet. Location of the test is in the southeast corner of section 4-17-34. The production formation is apparently the same as that of the Maljamar pool.

With oil in the Skelly well and good showings of both oil and gas having been found in the Mid-Continent Oil Company's Woolley-Jones 1, an area of 26 miles running east and west, is now considered potential oil land.

The new Ingelfield Bridges discovery is on the cap rock or staked plains.

Italian Capital Invests in Rumanian Fields

New York.—Italian capital to the extent of more than $22,000,000 is being invested in Rumanian oil enterprises, according to information obtained through an announcement of the A. G. I. P. of Rome.

A continued increase in the output of Rumanian fields as well as an increase in the exports from products from this country indicate the increase in importance of Rumanian fields. The output for 1926 is reported as approximately 3,241,000 metric tons, which compares with 2,313,345 metric tons of 1925. Exports for 1926 are given as 1,494,430 tons against 783,285 tons in 1925.

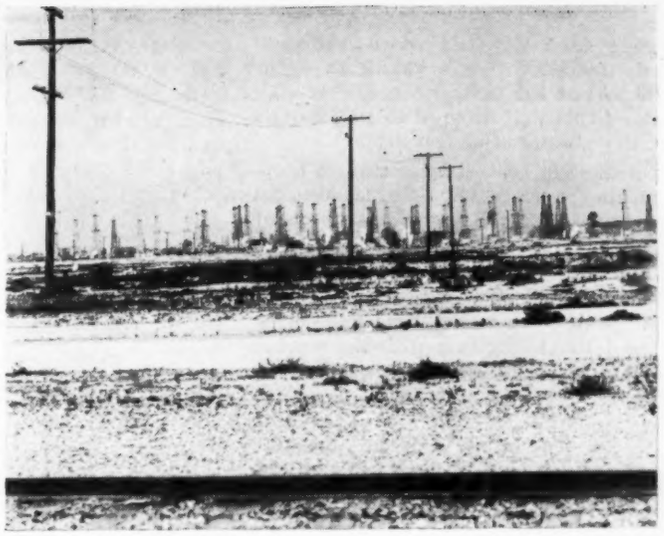
Building Power Lines to West Texas Fields

San Angelo, Texas.—Electric power for pumping wells and general use in all the established oil fields in West Texas is practically assured by transmission lines being constructed by the Texas Electric Service Company, which is affiliated with the Texas Power & Light Company, and the West Texas Utilities Company, or Insull interests.

The Texas Electric Service Company recently purchased power plants located at Odessa, Midland and Stanton, and is building 125 miles of transmission line to link these units with Big Springs, which is tied in with Sweetwater and other Central West Texas towns. Three 500 H.P. oil engine units are being added to the Big Springs station, and it is planned to start work shortly on increasing the voltage capacity of the trunk line connecting Sweetwater and Big Springs to 60,000 volts, or double the present capacity. The extra load for the Big Springs station is needed to handle the contracts made on pumping leases in the Chalk-Clay field, located about 16 miles southeast of Big Springs. Electricity will be available in the Chalk-Clay field within 10 days.

Upon the completion of the transmission line from Big Springs west to Odessa, the Texas Electric Service Company will build a 60,000-volt capacity line into the Church & Fields and Gulf-McElroy areas in northeastern Crane County, where power contracts are now being signed, thence across Upton County to the Upton-Regan county line. A connection with the West Texas Utilities Company will be made at the latter point, and power exchanged when needed by line breaks and extra loads.

The West Texas Utilities Company is building west from San Angelo to the Big Lake field and also to the McCamey-Hurdle district, which centers on the lower end of the Crane-Upton county line. Contracts for supplying power in pumping the wells in the Big Lake field with motors are expected to be signed next week. Increased use of air lift methods in Crane and Upton counties promises a greater market for these new electric lines.



SWAMPY NATURE OF THE REGION BEING DRILLED AT SEAL BEACH NECESSITATES LARGE EXPENDITURES FOR ROAD CONSTRUCTION, AS THE PICTURE TO THE LEFT SHOWS. ON THE RIGHT IS A PANORAMIC VITW OF THE NAPLES FIELD IN THE SEAL BEACH DISTRICT

Seal Beach Drilling Promises Early Peak

With 41 drilling wells and 100 rigs and locations, estimates of date when output will threaten California market is advanced

By WM. V. GROSS
Staff Representative

Los Angeles.—From the way drilling activity is booming at Seal Beach, it begins to look as though the 90-day period set for the time in which peak activity and production will occur might have been too generous. If wells continue to go down as they have during the past two weeks and flush is aided in proportion to the number of wells reaching the sands, 90 days is too remote.

If the field produces wells of the calibre of its first 24 completions, (averaging 1333 barrels each on March 19), the effect of Seal Beach's flush on the California crude price structure will be a downward revision. It has been estimated the area, which embraces the districts of Alamitos Heights and Naples, will pass 70 barrels within two months. The estimate, based on the hypothesis that the Selover and Bixby sands underlie most of the acreage under development in reasonably uniform richness, is considered conservative. There are not yet appreciable means of determining the applicability of the hypothesis. Only drilling can determine this.

Some idea of the campaign that will be carried on at Seal Beach until the production peak obtains may be gotten from comparative field statistics. Despite the retarding effect of municipal authorities' attitude on granting drilling permits, 41 wells are already drilling down to the sand. (Several of these are nearing completion.) In addition to these, on March 17 there were 56 rigs being held in readiness for immediate drilling. The week preceding, the number of rigs ready and waiting for drilling orders totaled 35. Outside of the rigs and drilling operations, 44 locations have been staked, the drilling of them pending showings made by wells now in various stages of completion. Fourteen spuds were recorded during the week ending March 19.

Completions Expected

Out of the 141 operations being carried on at Seal Beach, a number are due for completion soon. Two wells are due for completion during the next week, barring accidents. Paul Getty's' Cleaver 1 has cemented 15½-inch casing at 615 feet and is coring ahead below 4550 feet. The Pan-American Petroleum Company's Naples 3 cemented 15½-inch casing at 715 feet and is drilling below 4660 feet. Paul Getty also has three other wells on his Cleaver property which have set surface casing and are drilling at depths ranging from 2000 to 3300 feet. The Pan has three wells at depths ranging from 3500 to 4650 feet.

On its Bryant lease, the Associated's No. 4 is in oil sand at 4366 feet after having cemented 8⅝-inch casing at 4320 feet. The same company's Bryant 6 is running 8⅝-inch after having cored oil sand at 4420 feet. On its Hellman property the Associated has three projects well under way, in addition to its producing wells.

Marland Oil Company, discoverer of the field, has three wells in the sand on its Bixby property which are due for completion soon and two wells around the 4000-foot stage. This organization has a daily average production of about 14,000 barrels at Seal Beach. The Standard Oil Company of California, which is the second largest producer at Seal Beach, has four wells nearing completion on its San Gabriel Improvement Company property.

With the above wells listed for completions before the middle of April, Seal Beach production might reach the 40,000-barrel mark within five weeks. A tabulation shows how the field's daily output has increased during the past five weeks:

February 18	15,400
February 25	20,300
March 4	25,400
March 11	28,000
March 18	32,000

Seal Beach Flush

During the week ending March 19, five producers with an aggregate initial of 6190 barrels were added to the Seal Beach daily output. A majority of this flush is better than 24 gravity oil with a negligible cut.

Best among the completions was the Associated Oil Company's Hellman 2, which made 1600 barrels of 26.3 gravity oil from 4456 feet. This well cemented 15½-inch casing at 1486 feet, 8⅝-inch casing at 4380 feet and ran in 2½-inch casing at 3499 feet. The Associated brought in another well on its Bryant property when No. 2 made 860 barrels of 24.9 gravity oil from 4340 feet. Bryant 2 cemented 15½-inch casing at 1407 feet and 8⅝-inch casing at 4317 feet.

The Marland Oil Company of California, whose only production in the State is

coming from the field which it discovered, completed Selover McGrath 4 for 1500 barrels of 25 gravity oil at 4769 feet. (This well dropped to 1000 barrels per day shortly after completion).

On the San Gabriel Improvement property, the Standard Oil Company brought in two wells. No. 8 made 1100 barrels of 25.7 gravity oil at 4705 feet. The Standard's San Gabriel 9 made 1130 barrels of 21.9 gravity oil from 4730 feet.

A list of those taking part in the boom at Seal Beach, together with the number of drilling wells, rigs and locations of each, follows: (This list is as of March 17.)

Company	Drilling Wells	Rigs	Locations	Total
Ahlberg Oil Co.	..	..	1	1
Associated Oil Co.	5	3	2	10
Bankline Oil Co.	..	1	..	1
California Eastern	..	3	2	5
California Petroleum Corp.	4	4	4	12
Coastal Oil Co.	..	..	1	1
Craburn Oil Co.	..	1	1	2
Dill & Comstock	..	..	1	1
General Petroleum Corp.	2	6	1	9
George Getty	2	2	7	11
Paul Getty	5	1	1	7
Hart & Company	1	..	..	1
Italio-American	..	1	..	1
Marland	8	12	9	29
McCoy-Deeds	..	1	1	2
E. J. Miley	1	1	..	2
Pan-American	7	8	2	17
Rainbow Pet. Corp.	..	1	1	2
Richfield	1	2	..	3
Fred Roberts	..	..	1	1
J. F. Roberson & Co.	..	1	..	1
South Basin Oil Co.	..	1	..	1
Superior Oil Co.	..	3	1	4
Universal Consolidated Co.	1	2	1	4
H. L. Whiston	..	..	1	1
F. Walker	..	..	2	2
Walklin & Peacock	..	1	..	1
Webb Syndicate	..	1	..	1
White Eagle	..	..	5	5
Standard	4	..	..	4
Total	41	56	44	141

Phillips Shows Growth in Properties

Bartlesville. — Wide expansion in physical properties is shown by the balance sheet for Phillips Petroleum Company for 1926. Crude oil production of the company averaged 55,032 barrels daily; casinghead gasoline yield averaged 443,382 gallons daily, and the natural gas division sold 161,058,000 cubic feet. These figures all represent considerable gains over 1925.

Increased operations were shown in gross gaining, $22,067,476 to $57,838,370; after expenses and $13,633,257 reserves for depletion and depreciation, latter comparing with $8,913,438 reserves in 1925, the balance was $21,407,708 or $8.89 a share on 2,407,082 shares. In 1925 the balance was equal to $6.46 a share on an average of 1,906,936 shares.

Field operations yielded 534 producing wells, giving the company 1759 at the close of the year. Ten new gasoline plants were constructed, bringing the number to 41. Three new gas booster stations were built. Leases on 67,000 acres additional land were secured and 488 new tank cars were bought.

These new assets were reflected by increases in plant and property account $39,000,000 to $146,413,076, compared with $107,237,939 at the end of 1925. Reserves for depletion and depreciation against this value was $45,214,987 at the end of 1926 and $33,491,536 at the close of 1925.

A considerable change in working capital position is shown in the balance sheet, inasmuch as Phillips has not raised any new money since the end of 1925.

Marland Expands in 1926

Ponca City, Oklahoma.—Expansion of activity by the Marland Oil Company for 1926 is shown by a total of $33,425,565 new money put into production, refinery, pipe line, and marketing and other facilities, according to the balance sheet.

Stockholders subscribed $20,234,786 of this amount. There was a 20 per cent issue of common stock at $50 per share, and also an exercise of warrants. The 1926 surplus of $4,090,744 and reserves of about $5,580,000 out of income, represented the bulk of the balance of funds to meet capital expenditures.

There was an increase of 6,000,000 in pipe line runs for the year, a 1,600,000 barrel gain in refinery output, 600,000 acres more leases secured, and a gain of 3,800,000 barrels in inventories. Crude production increased 850,000 barrels.

Net profits per share of $5.05 was less than for 1925 when the return per share amounted to $7.80. This resulted largely from a change in bookkeeping whereby depletion reserve on drilling labor was eliminated and a charge-off for all drilling labor substituted. This resulted in a reduction of $9,837,770 from the 1926 income, so that none of the intangible drilling cost was capitalized. In 1925 the reserves for intangibles in drilling was but $2,476,344. On the basis of the same method in bookkeeping for the two years, the yield per share for 1926 would have been between $9.25 and $9.50.

Mexican Output Loses in January

Tampico.—Due chiefly to heavy salt water intrusions and limited activity resulting from the political situation in Mexican fields production fell to 5,908,073 barrels in January, a decrease of 129,698 barrels from December and 3,606,213 barrels from January, 1926. Statisticians are estimating that Mexican production will not be exceeding 4,000,000 by the close of this year unless differences between operators and the Mexican government will be settled to the point of allowing companies to open new productive territory.

The Pan-American ranked as the biggest producer in January with 2,473,936 barrels, an increase of 60,399 barrels over December, but 1,144,555 barrels less than in January, 1926.

The following table shows production of light and heavy crude by months for January, December and for January, 1926, listed by companies:

Company	Total Jan.	Total Dec.	Total Jan. '26
Pan-Am.	2,473,936	2,413,537	3,618,491
M. Eagle	376,073	376,171	528,443
Std. N. J.	525,053	538,936	1,043,674
R. Dutch	470,548	463,662	530,360
M. Seab.	370,277	347,460	885,404
Sinclair	263,466	296,006	424,234
Gulf	305,149	369,605	723,816
N. Rwys.	151,625	168,313	753,002
Atl. Gulf	77,649	82,073	107,573
Texas Co.	50,775	50,126	62,284
Misc.	843,522	841,882	836,985
Totals	5,908,073	6,037,771	9,514,286

For the week ending March 5 a temporary increase was shown, the territory gaining 850 barrels in daily average as compared with the preceding week. This gain was chiefly from the light oil sections, and it is problematical as to whether the upward trend will have a significant meaning on long time future production.

Oregon Basin Well Will Go to Tensleep

Casper, Wyo.—The Ohio Oil Company has a difficult fishing job in its discovery well in the Oregon Basin field and is temporarily held up in deepening the test to the Tensleep sand. The hole is still bottomed in the Embar sand. The well still flows occasionally. The Tensleep sand will be drilled through before the well is produced. The discovery has awakened considerable interest and operators holding leases in and near the field are expected to develop their holdings during the year. The upper sands are producing and have been proven for more than a year.

Waggoner Ranch Drilling Requirements Extended

Wichita Falls, Texas.—Drilling obligations held by independent and major producers on the W. T. Waggoner Ranch in Wilbarger and Wichita Counties have been extended for an indefinite period of time, according to an announcement made public late last week by R. L. More, who has charge of the ranch properties. This action was taken to aid in the general effort to curtail crude production in the Mid-Continent until market conditions return to a normal level. Several hundred wells will be held back as result of this order, as Phillips Petroleum Company, Milham Corporation, Humble, Roxana, The Texas Company and a number of other companies have a continuous development program to fulfill on most of the leases held on the Waggoner Ranch. The lease owners will be given 30 days notice prior to the reinstatement of the drilling obligations, according to More.

Plain Dealing Looks Like Another Cotton Valley

Completion of 35,000,000-foot gasser with spray of oil will be followed by active drilling in Bossier Parish area

By Staff Representative

Shreveport, — The Carterville-Plain Dealing area of Bossier Parish reported the past week's most interesting development in the Shreveport territory, Bahan et al. having completed their Mays 1, in section 27-23-12 as a 35 million foot gasser, the second large gas well to be brought in in this vicinity in recent months; and Woodley & Collins—Atlantic Oil Producing Company's L. & A. 2, section 14-23-12, having blown in on last Friday making an estimated 3 to 5 million feet of gas and spraying probably 15 to 25 barrels of oil which appears to be of about 36 gravity. The latter well had reached a depth of 3081 feet where a core was taken showing sand with an odor of oil, and the drillers were preparing to make a test of the formation in the hope of making a gas well. Since it came in it has been allowed to blow wild in the hope that it would increase its flow. However, reports from the well Monday are to the effect that it has ceased flowing steadily and is making heads of about 20 to 25 barrels at intervals of six hours. Meanwhile the owners are proceeding with the installation of storage and other equipment with which to get an accurate gauge of the well's output. It is also planned to run in a string of 2½-inch tubing and set with a packer to see if it will respond with an increased volume of fluid. The well is now flowing through 8¼-inch casing which was set at a depth of 3064 feet.

The blowing in of this well has created a great deal of excitement, not only among persons in and around Plain Dealing, located eight miles northeast of the well, but also among Shreveport oil men who have visited the scene in numbers. The opinion of the majority of those who have made expression regarding the well is that, even though the well should not be completed as a commercial well, which many believe it will be, its present showing is sufficient to warrant the belief that this area is capable of making a potential bid for an oil field; and an intensive drilling campaign is expected to follow. Several wells now drilling nearby, including those of the Magnolia, Louisiana, and Woodley & Collins, are expected to reach the sand soon, at which time it should be revealed whether the field has future possibilities or not. Appearances now point to a repetition of the Cotton Valley field which, it will be remembered, was developed in about the same manner.

Lease men and scouts are becoming very active and one can hear all kinds of conversations about a near boom in Bossier Parish. As a matter of fact indications are unusually promising and it would not be a surprise to the majority to see drilling activity reach boom proportions in a very short time. Of course, it all hinges upon the outcome of the tests now drilling, but the indications are very promising. The Woodley & Collins-Atlantic well is located ten miles northeast of a well completed several years ago which flowed at the rate of 10,000 barrels of oil for a period of 24 hours and sanded up, defying all efforts to revive it. No offsets to this well were ever successful producers; and it is entirely possible that the well recently completed has been drilled into the same formation which was found in the first well. Also, it is general logic that Louisiana always starts an oil boom in the midst of a period of over-production and consequent low crude prices.

Sabine Parish

Activity in the Pleasant Hill section of Sabine Parish is also increasing by leaps and bounds. A new town is in the process of being built, Oil Center, located on the recently constructed gravel road, three miles west of Pleasant Hill and one mile east of the discovery well, brought in by the Arkansas Fuel Oil Company during February of this year. This same company is preparing to set casing for a test in their Logan 3, an offset to the discovery well; and it is expected that Logan 4 and 5 will reach the sand within the week. Magnolia Petroleum Company is making arrangements for the erection of a warehouse and other buildings necessary to serve their expected operations in the new field, at Pelican, located a few miles north of Pleasant Hill, on a graveled highway. This company has derrick patterns on the ground for two locations recently made in this district. All operators seem to be confident that now that a new field will be developed in this territory after having been rather skeptical for several weeks following the completion of the Arkansas Fuel Oil Company's Logan 1, which is now flowing steadily at the rate of 215 barrels per day.

A number of important wildcat wells reported news of interest during the past week, the most of which, however, comes from sections of the country already penetrated by the drilling bit. Perhaps the most spectacular occurance of the week was that reported by the Dixie Oil Company's Jenkins deep test in section 9-12-11, De Soto Parish, which blew in from a depth of 5,280 feet while drilling with cable tools. The well made a large amount of gas for about fifteen minutes, blowing around the cable tools, and then bridged over. This test is the second to report a blow-out of this nature in this vicinity, the Gulf Refining Company having experienced the same behavior in their Williams deep test drilled several months ago, and it is considered of prime importance by reason of the fact that it shows the potentiality of the Trinity sand in that area.

Dodge et al made a Halliburton test at a depth of 1,100 feet in their Tremont 1 well in section 35-13-3w, Winn Parish, which revealed the presence of a strong gas pressure, strong enough in fact to throw rocks, mud, salt water and slight spray of oil out of the hole during the progress of the test. The owners state that a small gas well could be made at this depth; but, as they are anxious to make further experiments, and complete the well as an oil well, if possible, they are going on down with it.

Gulf Refining Company completed its Marshfield 1 well in the new gas field in Sabine Parish last week, at a depth of 2,395 feet, making 20 million feet of gas. This gas area was uncovered by them last November. The Tunica Petroleum Company is reported to have picked up a nice showing of oil in L. & A. 23, section 9-7-2e, La Salle Parish, at a depth immediately below 770 feet, at which point they recently tested salt water and a small show of oil. Leases near this well are all sold out and very little close up acreage can be secured. There are only a few small tracts left for sale and these are reported leasing readily at prices of $150.00 per acre near the well to $5.00 per acre at a distance of several miles from it. However, one tract of several thousand acres owned by one individual is as yet unleased, although it is thought that a deal will be closed shortly as several are understood to be pending.

Caddo Parish

Another important development which came to light last week, while not of wildcat nature, was the announcement that the Gulf Refining Company's Tyson 12, in section 14-21-

12, Caddo Parish, completed several months ago as a gas well, is flowing at the rate of around 500 barrels per day. The oil is coming from a depth of approximately 3,800 feet and is said to test 46 gravity. The Trinity sand in this field is due for some important tests this year and the success of this well will have a tendency to speed up activity in that direction.

The Louisiana Petroleum Corporation's Binion 1, section 22-17-6e, is still furnishing thrills for its owners, as is evidenced by its actions during recent weeks. Liner was set for a test at a depth of 2,475 feet last week and when opened up on March 14 it made one or two small heads of mud and water and probably would have cleaned itself had it not been closed in again immediately. They plan to open it up again shortly. It will be remembered that this well tested about 2 million feet of gas at a depth of 2,439 feet. What will eventually be done with the well is problematical. The owners seem to be undecided as to what steps to take toward its final completion.

The Urbana-Lawson area in Arkansas marked time during the past week as all wells drilling in that section have not yet reached any important depths. Garrett & Modisette are coring in a hard Lime formation at a depth of 2,920 feet in its Union Saw Mill 1 in section 7-18-13; and the Superior Oil Company's Jerry 1 is coring at a depth of 2,995 feet in section 32-17-13.

The Magnolia Petroleum Company has made location for a well to drilled at Shelbyville, Texas, located about midway between the wells drilled by the Texas Company near this place some time ago. The exact date upon which drilling will be started has not been announced but it is thought that it will be at once since Anderson & Sebastian, who have drilled several test wells in this section are also expected to make a location on a tract which they own in the southeast part of the county within the near future. This territory is responsible for a great deal of oil excitement in the past and there are still a number of people who maintain that oil will some day be found in this locality.

Clarke Dies Suddenly at Baton Rouge

WITH the passing of Charles Kelly Clarke, on March 21, the oil industry loses one more of its sons of the old school, for Mr. Clarke can be said to have grown up with the industry. Born in 1865, five years after the discovery of the Drake well, he reached young manhood at a time when the industry was experiencing its first growing pains, and from the time he was 20 years old until his death, he was actively associated with oil in various capacities.

This association began when he was employed by the National Transit Company, April 1, 1886, on his first oil field job; it ended with his death, at which time he was president of the Standard Oil Company of Louisiana.

The intervening years were crowded with work. From the humble beginning, he advanced step by step, each succeeding position demanding a little more responsibility until in February, 1926, he achieved the highest honor his company had to offer—its presidency.

In May of the same year his friends honored him with a banquet, and the following chronology is taken from a brochure read there, paying tribute to Mr. Clarke.

"Charles Kelly Clarke, born in Coolville, Athens County, Ohio, May 19, 1865.

"National Transit Company, April 1, 1886, to April 1, 1887, laborer.

"Southwest Pennsylvania Pipe Line Company, April 1, 1887, to November 1, 1890, connection work and field gauger in the McDonald, Pennsylvania, district.

"Buckeye Pipe Line Company, Sistersville, West Virginia, territory, from November, 1890, to 1895. Oil purchasing agent, connection foreman, gauger and gauger supervisor.

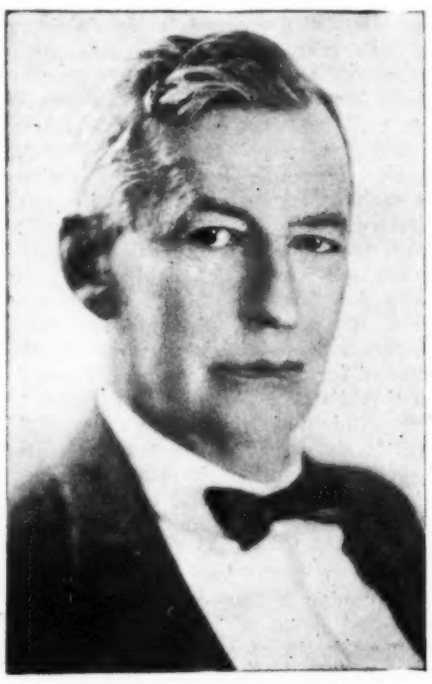
"Eureka Pipe Line Company, Marietta, Ohio, 1895 to 1902, district foreman.

"George A. Burt Company, March, 1902, superintendent in charge of pipe line and production. Company was later merged into S. G. Bayne, Security Oil Company, John Sealy Oil Company, and which interests are now the Magnolia Petroleum Company. Engaged through these companies from 1902 to 1909 in the development of the old original Gulf Coast fields, including Spindle Top, Batson, Humble, Saratoga, Sour Lake, etc.

"Standard Oil Company of Louisiana, at Shreveport in 1909, as superintendent of pipe line department. Made manager of pipe line and production departments in 1912. Became president of the Oklahoma Pipe Line Company on May 29, 1919. Made vice president of the Standard Oil Company of Louisiana, on December 31, 1919.

"Made president of the Standard Oil Company of Louisiana on February 15, 1926."

Those of his friends who knew him well enough to call him "Cal," characterize the man as a "lovable spendthrift in matters of friendship," and as such he is remembered. One who knew him best declared that the most unkind thing he ever did was to brush aside a newsboy in the streets of Beaumont, on a busy day—but he ended by buying every paper the lad possessed.



CHARLES KELLY CLARKE

Another incident that revealed his sparkling humor, typical of the man, is recalled by a friend. Once during a card game in the Colonial Hotel at Shreveport, many years ago, he and Joe McCue, a lifelong friend, deliberately shot each other to an imaginary and picturesque death with blank cartridges in wicked pistols while "their audience leaped from windows and clawed under any shelter at hand to evade the menace of flying bullets."

Mr. Clarke's death came unexpectedly at his home in Baton Rouge. He had been ill for several days, though not seriously. While inspecting the Baton Rouge plant Sunday with Standard Oil officials from New York, he complained of pains about his heart, however, and servants found him dead, attired in sleeping clothes in the bathroom of his home, early Monday morning. He had retired early Sunday evening after a conference with W. C. Teagle. His wife and son were not in Baton Rouge at the time of his death.

Heart trouble was attributed as the immediate cause of death by the parish coroner, and he stated that Mr. Clarke had been dead six or eight hours when discovered by the servant.

F. L. Clements, Gulf Traffic Man, Dies

Houston.—F. L. Clements, traffic manager for the Gulf Production Company for the past 20 years, died in Houston March 18 after an illness lasting more than a month. He was 60 years old at the time of his death.

Mr. Clements was employed by the Gulf when its offices were at Beaumont. Prior to that time he was connected with railroads for several years, and before coming with the Gulf traffic department was private secretary to C. H. Markham, now president of the Illinois Central Railway.

No one had been named to succeed Mr. Clements early this week.

Determining Best Conditions for Electric Pumping

(*Continued from page 42.*)

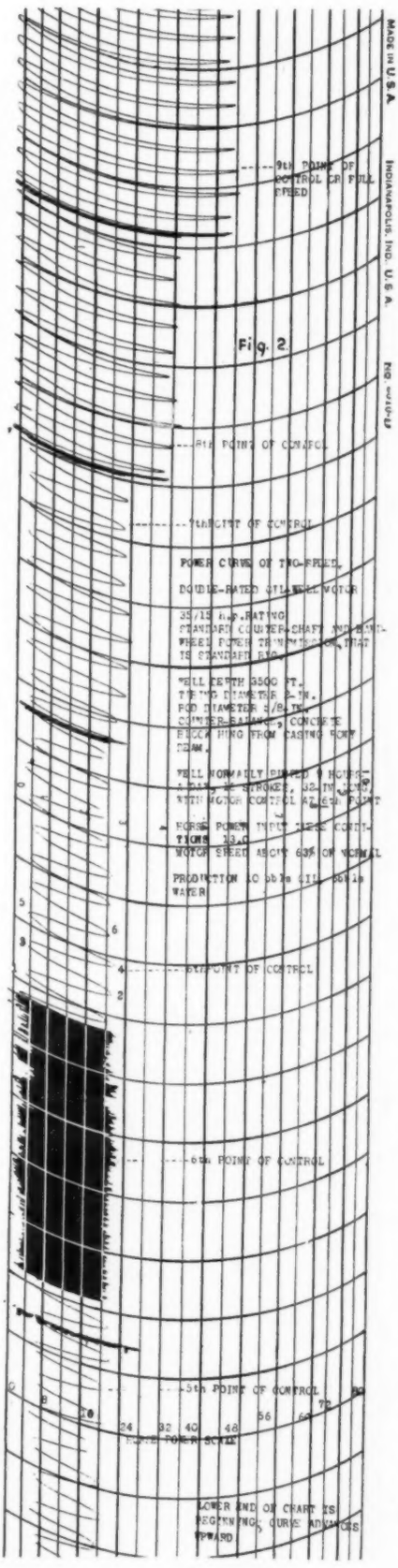
very satisfactory record. Slower speeds do not produce as good charts.

Pumping Power Curve

Figure 2 shows a section cut out of a sample chart. The data of principal interest is written on the chart. The curve starts at the bottom of the record and advances upward. The first section shown was taken with the motor operating on the fifth point of control at the variable speed controller. Here the chart travel is six inches per minute. The motor was normally operated on the sixth point of control to produce what the pumper considered the best pumping speed, that is 16 strokes per minute.

For this reason, the chart travel was adjusted to six inches per hour to obtain the record shown by the next or solid section. Here the vertical distance between the printed curved lines or graduations of the chart represent the travel in seven and one-half minutes. This part of the record was made in about 33 minutes. The next section gives the power curve for the normal pumping speed. Here each division of the chart travel represents seven and one-half seconds or in four of these divisions eight strokes of the pump have been made in one-half minute. In passing from point 1 to point 2, the curve indicates the sudden maximum load placed on the motor in picking up and lifting the rods. Then as the rods return down, they fall into the hole, if the effect of the counter-balance is relatively small, greatly increasing the speed of the motor. This causes the power taken by the motor to decrease from point 2 to point 3. This is a complete revolution of the pump. The process is now repeated from 3 to 4. Each point to the right represents the lift and each point to the left represents the fall of the plunger. At this speed, the average power taken as determined by the registering kilowatt-hour-meter, was 13 h.p. In other words, this is the average of the values on the curve. The maximum instantaneous power at points 2 and 4 is about 20 h.p. The minimum at points 1 and 3 is about 4 h.p.

The other sections on the record show the variation in power over one pumping revolution for higher speed. At the seventh point of control 18 strokes were produced; at the eighth point, 20 strokes, and at the ninth point, or full speed, 22 strokes. At the two highest speeds, the maximum instantaneous power is about 32 and 44 h.p., respectively. The minimum power falls to zero. It is interesting to note that the hum of the motor varies from low to high sound in proportion to the variation in the peaks of this power curve. Extreme variations sometimes are responsible for the motor running warm. The average horsepower load would have to be higher than that of this test to produce serious heating. The motor was operating at a satisfactory temperature.


MADE IN U.S.A.
INDIANAPOLIS, IND. U.S.A.
9th POINT OF CONTROL OR FULL SPEED
6th POINT OF CONTROL
5th POINT OF CONTROL
4th POINT OF CONTROL
POWER CURVE OF TWO-SPEED
DOUBLE-RATED OIL-WELL MOTOR
35/15 H.P. RATING
WELL DEPTH 3500 FT.
TUBING DIAMETER 2-IN.
ROD DIAMETER 3/4-IN.
WELL NORMALLY PUMPED 9 HOURS
WITH MOTOR CONTROL AT 9TH POINT
MOTOR SPEED ABOUT 60% OF NORMAL
WATER
8 16 24 32 40 48 56 64 72 80
TIME POWER SCALE
LOWER END OF CHART IS BEGINNING, CURVE ADVANCES UPWARD
Fig. 2

The counter-balance at this well probably produced about one-third of the most satisfactory effect. Had the weight been somewhat greater, the maximum power peaks would have been shorter. Also some amount of power would have been required to lift the counter-balance. At the section shown for the fifth point of control, a slight peak is noted at each of the lowest points of the curve. At this speed the counter-balance was actually taking that small amount of power to start it on its upward travel.

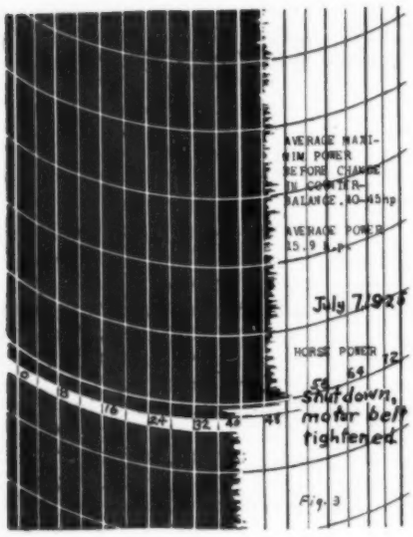
All sections of this chart show how remarkably well the electric motor follows the instantaneous power demands placed upon it in pumping an oil well. The flywheel effect of the rotor or rotating part is small enough to allow the motor speed to increase almost instantly with the fall of the rods. Then when the rod load is to be lifted, the inherent torque or pick-up capacity of the motor responds to the demand. Although the changes are made as demanded, the effect is to smooth over the actual speed variation from one extreme to the other.

Counter Balance Adjuster for Minimum Power

At this time only sufficient material is discussed to show in general the sort of tests that have been carried out in studying the use of electric power for pumping oil wells. As another example of the use of the curve drawing wattmeter, charts of Figures 3, 4, 5 and 6 are shown, all for the same well. The data of principal interest at the time the records of Figures 3 and 4 were taken for this well is as follows: Two-speed, double-rated, oil-well motor, 35/15 h.p. rating, standard counter-shaft and bandwheel transmission, that is standard rig, well depth 3500 feet, tubing diameter two and one-half inches, rod diameter three-fourths inch, counter-balance concrete block hung from timber pony beam, well normally pumped straight time at 17 strokes per minute, 34-inch stroke, with motor control at the ninth or full speed point, horsepower input these conditions 15.9, motor speed normal, production 100 barrels oil with moderately large quantities of gas.

Figure 3 was taken to show the power conditions existing at the well over several hours' time, with the chart traveling six inches per hour. The motor belt was slipping. At the gap in the curve the motor was shut down to tighten the belt. The greater power demand with the tight belt is shown by the next section of the record. Before this adjustment, the maximum power was about 40 h.p., after it was about 45 h.p. with the slip in the belt decreased, the well was pumped enough faster to cause the greater power demand.

Figure 4 was taken with a chart travel

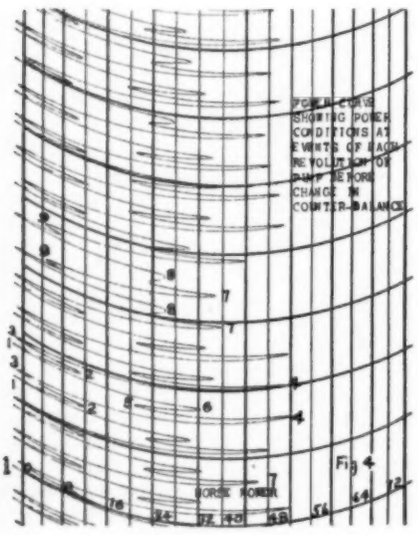

AVERAGE MAXIMUM POWER BEFORE CHANGE IN COUNTER-BALANCE .30-45 hp
AVERAGE POWER 15.9 h.p.
July 7, 1926
HORSE POWER
Shutdown, motor belt tightened
Fig. 3

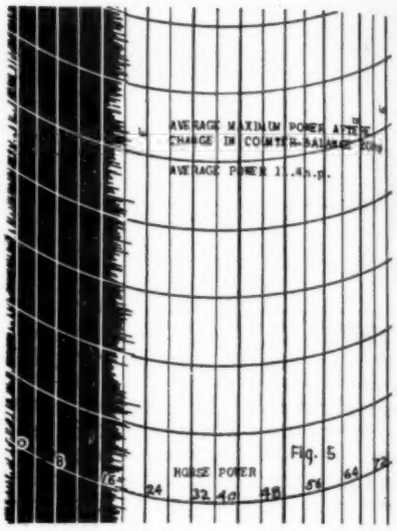
of six inches per minute. The nature of the power demand for one complete revolution of the pump will be seen by following the points as numbered. The counter-balance on this rig was effective enough to require some power to lift it in addition to that it received from the rods falling into the hole. This power the motor supplied as is noted in passing from point 1 to the peak at 2. Then the counter-balance passed over the top dead center, where it next dropped to take up the slack in the rods. This decreased the load on the motor from 2 to 3. The pick-up on the rods produced the maximum load from 3 to 4. When the rods fell into the hole, the load decreased to 5. The rise from 5 to 6 indicated power increase caused by the plunger striking the surface of the fluid in the well. The hole in the pitman at the crank pin was about twice as large as the pin; hence lost motion here was partly responsible for the peak 6. Later the plunger passed on through the fluid increasing the speed of the motor and decreasing the power from 6 to 1. Here the revolution again starts passing through the same series of events.

The large amount of gas in this well often prevented the pump from lifting oil. When the tubing carried a large proportion of gas naturally the total load lifted on the up stroke was less than when more oil and less gas was carried above the plunger. This decrease in power demand is shown at the points 7, corresponding with points 4 as to events. On striking fluid as at points 8, the power increase was not so great, because the large percentage of gas in the working barrel produced a cushioning effect as it was compressed. Point 8 is round instead of sharp, as at 6 for this reason. Point 9 is not as low as 3, because the pick-up load, though small with the gas present, occurred quicker, thus not allowing the counter-balance to fall as fast as at points 3.

It was apparent that this well had too little counter-balance. Even with the maximum power reaching 40 to 45 h.p., the motor was only moderately warm. The average power was 15.9 h.p., or little more than the normal full load rating. The extreme variation in the speed of the motor with the rise and fall of the rods was further evidence that the rods were not traveling with nearly as uniform motion as they should. The counter-balance weight was increased by small amounts for the purpose of giving the rods a more uniform motion as well as reducing the power consumed by the motor as much as possible. With each increase in the counter-balance the point 2 of Figure 4, moved farther out on the scale, showing the increased power required to lift the new weight. At the same time the point 4 moved toward the zero line, showing the decreased power required to lift the rods. The counter-balance was taking part of the rod lift when the former passed downward. With a chart travel of 12 inches per minute, Figure 6 was taken. Here the points 2 and 4 reached about the same position on the power scale. It was found that the minimum power input occurred for this condition. This means that the power required to lift the rods was the same as that required to lift the counter-balance. Point A shows the effect of the crank pin moving sideways, lost motion in the pitman as the latter was forced up.

Figure 5 shows the average maximum power chart for the condition of the chart of Figure 6. The maximum power is about 20 h.p., or close to one-half the maximum of Figure 3. A glance at Figures 3 and 5 quickly shows the contrasting conditions of maximum power for the otherwise same pumping conditions before and after counter-balance adjustment. The average power of Figure 5 was found to be 11.4 h.p., or a reduction of 28 per cent below the former average. The motor ran cool with very little noticeable variation in speed. With the counter-balance adjusted to regulate power conditions as just shown, some rod trouble occurs. This is because of the snap produced in the rods when the counter-balance takes up the slack in the rods, as it starts on its downward travel. Therefore the matter of the most satisfactory or best counter-balance requires consideration of other matters than mere reduction of power. The general subject of counter-balance will be dealt with later in a manner to help the power user understand the proper adjustment.

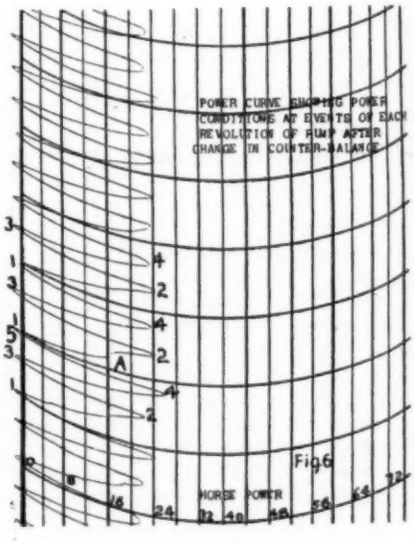

POWER CURVE SHOWING POWER CONDITIONS AT EVENTS OF EACH REVOLUTION OF PUMP BEFORE CHANGE IN COUNTER-BALANCE
HORSE POWER
Fig. 4



Subjects to Aid the Power User

Other subjects influencing the prevailing practice in selecting and operating various surface equipment are merely listed at this time. Each will be covered in more detail in later work. In looking over the chart of Figure 2, the reader may wonder why some thought had not been given to speed relations. This well was pumped only nine hours each day. Then, too, the well was pumped with a comparatively short stroke, considering the depth, and at a slow speed. Why was it not possible to change a pulley or two to allow the motor to be operated at its full speed with the controller at the ninth or last point of control? It is only natural to expect the motor to deliver a certain amount of power more efficiently at full speed than at speeds below that. The production at this well was small and even small savings in power are worth while. This brings up the general subject of "Motor Speeds and Practical Ratios for Pumping Oil Wells."

In thinking of speed ratios and power relations in connection with the old standard rig, the thought may arise as to how much less power is required where special reduction gear units are used. Also what are the other advantages of the gear units and why are they rapidly becoming more popular? This contrasting practice in


POWER CURVE SHOWING POWER CONDITIONS AT EVENTS OF EACH REVOLUTION OF PUMP AFTER CHANGE IN COUNTER-BALANCE
A
HORSE POWER
Fig. 6

Cuts Cleaning-Out Costs

Crawler Wheels Take It Anywhere

Three Speeds Forward and One Reverse for All Operations

New **STAR LEASE MAINTENANCE MACHINE NO. 44 ST**

Moves Assembled, Quickly Rigged-Up

Quick Friction Reverse on Bull Reel

Chain Driven Reels

Powered by a 15-30 International Tractor

Runs Well on Gasoline, Kerosene or Natural Gas

32-45-58 Ft. Telescoping Mast

Can Be Used Under Standard Derrick

The Star Drilling Machine Co.
Akron, Ohio

Branches at Chanute, Kans.; Wichita Falls, Texas; Long Beach, Calif.; Portland, Ore. Export Office: 2 Rector St., New York City, U. S. A.

Send coupon to

The Star Drilling Machine Co., Akron, O.

Without obligation, please send complete information and prices on the 44 ST to—

Name

Address

City State Oil Weekly

pumping equipment furnishes material for the subject, "Old Standard Rig Versus Special Reduction Gear Units."

What does the power curve at the motor look like when rods and tubing are pulled? Why does the motor stand the rough uses of quickly reversing from up to down? How does the two-speed double-rated oil well motor compare to the single-speed star-delta motor for this job? What is the best way to pull rods and tubing in any case? Some light will be shed on these questions under the heading "Analysis of Pulling Jobs."

Test work, such as has been outlined, would fall far short of its possibilities if it did not provide some general idea as to the "Power Requirements of Pumping Oil Wells." Since every well is a problem possessing its own peculiarities, it would not be possible to exactly predict the amount that any given well will take. However, a review of the power and well conditions to be given under this title should be helpful to the power user, if he will make a study of his wells.

When you buy a motor or any other power unit to handle all the work at a pumping well "How much torque, pick-up or ability to pull do you buy, and Why?" That an understanding of this feature is worth while, is putting the matter rather mildly.

It is often asked, "Why Use Two-Speed Double-Rated Motors for Pumping?" This question seems very important, considering the small amount of power taken by some wells. A review of the history of well conditions through the life of a well and the especial character of this class of motors will help answer this question.

Sometimes small single-speed or industrial motors are used at wells, pumped on the beam. What are the necessary conditions to make this plan practical?

Special pumping units are often used at shallow wells. This does not refer to the reduction gear unit used with the sampson post, walking-beam and pitman; but to a complete unit to replace these. What is required of these to insure successful operation over a long life? How does the power taken by them compare with the standard rig?

Experience in gathering the general information relative to the pumping rig, together with the present trend toward the use of steel rigs brings out the question, "What Kind of Pumping Rig to Use?"

Considering a given lease, what are the pumping problems and how may we put into practical use, the lessons learned by the previous discussions?

Electric power costs are analyzed in various ways, because of the ease of gathering power information. Why not make use of analysis in maintaining high power efficiency?

That using electric power in general for pumping oil wells is profitable needs no proof. The steady increase in the popularity of this sort of power is sufficient evidence of this fact. If by this presentation the writer has been able to arouse the proper interest in those subjects here briefly noted, to cause the power user to follow the more detailed discussions, and if these prove helpful in any degree, the writer will feel repaid for his efforts in this work.

Gypsy Well May Mean Another Pool for Seminole

By ROYE MUNSELL
Staff Representative

Seminole.—The Gypsy Oil Company brought in a 150 barrel producer on the Mission land in the southwest corner of 5-8-6 early Monday at 3995 feet. The well is about two miles northwest of the Lima pool and about the same distance from the Seminole pool proper.

The Gypsy company has large holdings in vicinity of the new producer which may indicate the existance of another large productive area in the Seminole district.

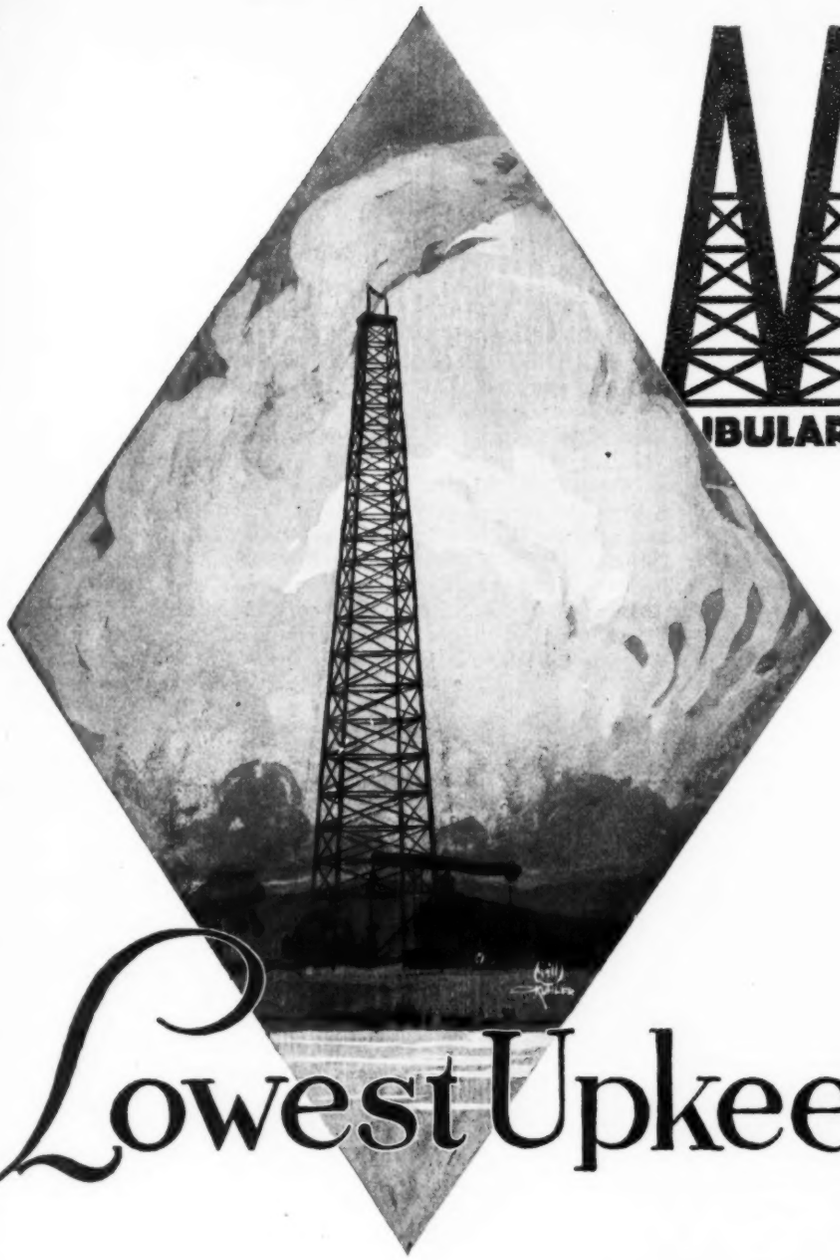
Tulsa.—As a result of the recent reductions in crude prices there is a tendency to slow down operations in the Seminole field. Whereas a month ago there were 144 locations with rigs uf and ready to go, there are now only 38. The reduction in number by weeks was in this fashion, 144 to 136, to 98, to 38.

Shutting down of two deep tests already started in the Earlsboro pool in section 16-9-5 is a case in point where the operators at Seminole are slowing down. Two others are where operators in 16-8-6 pulled down the tools and moved out at two locations with the statement that the wells will not be drilled at this time. At present there are 451 wells drilling in the four districts of the field.

With the output from the field fluctuating slightly just above the 300,000-barrel mark, there is no apparent evidence of holding production below the amount that can be handled by present facilities. By the last full 24-hour gauge the production from Seminole by companies and leases was as shown in the accompanying table.

Seminole District Production for Past Week

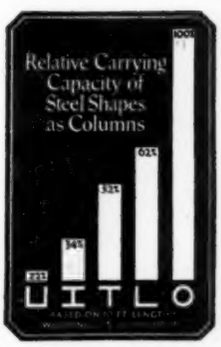
Company	Lease	
Amerada Petroleum Corp.	Anderson, 15-9-6	10,815
	Fixico, 23-9-6	5,060
	Rentie, 23-9-6	4,033
Atlantic Oil Prod. Co.	Cudjo, 35-9-6	5,665
Barnsdall Corporation	Carter, 24-9-6	10,128
	Jones, 34-9-6	7,100
Carter Oil Co.	Frazier, 3-9-6	3,915
	Davis, 4-9-6	6,255
	Knapp, 13-9-6	2,280
	Killingsworth 14-9-6	3,480
	F. Carter, 23-9-6	1,950
	M. Killingsworth, 23-9-6	2,615
	Grisso, 23-9-6	2,615
	M. Carter, 24-9-6	204
	J. Carter, 24-9-6	105
	Lukes, 27-9-6	5,600
	Strothers, 34-9-6	3,745
	No. 1. Cudjo, 34-9-6	130
	Walker, 15-8-6	6,360
	Cudjo, 35-9-6	5,560
	Stewart, 34-10-6	1,870
Empire Gas & Fuel Co.	Wilson, 34-9-6	1,950
	Lacey, 14-8-6	5,850
Gypsy Oil Company	Cudjo, 4-9-6	1,650
	Butler, 35-9-6	3,010
	Fixico, 26-9-6	270
	Harjo, 25-9-6	1,280
	Carter, 24-9-6	2,175
Gypsy-Amerada-Westland	State, 16-9-5	19,360
Independent O. & G. Co.	P. Fixico, 23-9-6	1,820
Independent-Garland	T. Fixico, 26-9-6	2,960
Independent & Inter-Ocean,	L. Jomes, 26-9-6	2,440
Independent-Atlantic	A. Cudjo, 35-9-6	480
I. T. I. Oil Co.	Cosden, 23-9-6	1,227
	Livingston, 15-8-6	5,875
	Davis, 13-8-6	3,495
	Bowlegs, 26-9-6	6,000
	Reed, 24-9-6	50
	James, 24-9-6	1,820
	Harjo, 23-9-6	1,990
Kingwood-Roxana Pet. Corp.	Harjo, 22-9-6	5,220
Mid-Kansas Oil & Gas Co.	Wilkons, 25-9-6	460
Magnolia Petroleum Co.	Cully, 3-8-6	595
Mid-Cont. Pet. Corp.	Franks, 25-9-6	3,410
	Grayson, 34-10-6	6,755
	Tayoche, 24-9-6	2,680
	Rentie, 14-9-6	3,660
McCullough-Philmack	Grisso, 35-9-6	2,090
Prairie O. & G. Co.	Carter, 10-9-6	55
	Spencer, 13-9-6	50
	Bloss, 25-9-6	355
	Strothers, 27-9-6	14,100
	Kinkade, 33-10-6	7,900
Pure Oil Co.	Strothers, 26-9-6	26,565
Roxana Pet. Corp.	22-9-6,	680
F. J. Searight	Youngblood, 33-10-6	1,600
Sinclair O & G. Co.	Pooly, 3-9-6	1,210
	Carter, 13-9-6	35
	Fixico, 23-9-6	2,635
	Cudjo "A", 35-9-6	9,350
	Cudjo "B", 35-9-6	8,000
T. B. Slick	Cudjo, 35-9-6	635
	Frank, 35-9-6	14,125
	Giblet, 35-9-6	1,080
Superior Oil Corp.	Cudjo, 35-9-6	6,040
The Texas Co.	Butler, 14-9-6	950
Tidal Oil Co.	Harjo, 23-9-6	580
	Carter, 24-9-6	2,525
	Mahardy, 24-9-6	1,090
	Tayoche, 25-9-6	3,950
	Fixico, 26-9-6	8,930
Turman Oil Co.	Cudjo, 35-9-6	off
	Grisso, 35-9-6	3,005
Twin State Oil Co.	Cudjo, 4-9-6	260



Moore
TUBULAR STEEL DERRICKS

Lowest Upkeep Cost!

MOORE upkeep is lowest because of several definite features. The greater strength of tubular leg sections and girts means lighter weight. The consequent saving in transportation and handling charges is considerable. The Moore patented clamp and track bolt assure easier and quicker erection, and with common labor instead of skilled workmen. The use of reinforcing legs converts a pumping derrick into a drilling derrick, or vice versa. These supplementary legs are used over and over again. A Moore Tubular Steel Derrick is easily dismantled and re-erected. Five to ten years' use, in different locations, often results in savings equal to its entire first cost.



World Wide Service for Twenty Years

LEE C. MOORE & CO., *Inc.* PITTSBURGH · TULSA

Established 1907

DALLAS, TEXAS HOUSTON, TEXAS WICHITA FALLS, TEXAS ISOM, TEXAS PARKERSBURG, W. VA.
CASPER WYO. SHREVEPORT, LA. EL DORADO, KAN. EL DORADO, ARK.

Say you saw it in The OIL WEEKLY

West Texas Production Being Opened Up Fast As Handling Facilities Are Available

San Angelo, Texas—Six new locations have been staked by the Mid-Kansas Oil & Gas Company and Transcontinental Oil Company on their joint holdings in the Yates shallow field, Pecos County. Three of these new tests for the field will be drilled on the Smith-Taylor land along the east line of section 33, block 194, and northwest of production, while two will be on the Yates land on the south end of river section 60, or due east of production. The sixth test will be a south offset to Yates 1, account 2. Mid-Kansas & Transcontinental's Yates 3 flowed 610 barrels during the 24-hour gauge ending Monday morning from pay at 1036-1073 feet, and is being drilled deeper. This well is the fourth porducer for the field, and logged the top of the lime at 992 feet, or about 40 feet lower than the discovery well.

Production in the Yates field is rated well above 5000 barrels daily, but limited storage facilities has made it necessary to shut in the wells, except for a daily blowoff for an hour to prevent paraffin accumulation. The Yates 2, which was gauging 6,600 barrels daily when shut in, is making about 65 barrels daily through a small leak in the gate valve. The Illinois Pipe Line Company is building a six-inch carrier from the Yates field to McCamey, where oil will be turned over to Humble on contract, and about six miles of pipe had been finished late last week on the line.

Production in the Church & Fields and Gulf-McElroy areas in northeastern Crane County was opened up to 18,850 barrels daily average last week, as result of increased pipe line and storage facilities. This represents a gain of about 5000 barrels over the previous week, with 38 wells on the producing list in the two areas. Gulf has several flowing wells on the McElroy Ranch partly pinched, while Simms & Atlantic's big well on the University land is pinched to about 1500 barrels daily. Tidal et al's University 1-F, which was reported last week as making 4450 barrels natural at 2857-2902 feet, declined below 4000 barrels, and has been deepened. This well flowed 3970 barrels ending Sunday morning at 2936 feet, and gauged 4117 barrels ending Monday morning at 2948 feet. Deeper drilling will not be attempted further.

A half mile extension to the southeast of the Gulf-McElroy area was accomplished during the past week, when Gulf's McElroy 6, center of the southwest of the southeast of section 197, gauged 715 barrels of 32.6 degree gravity oil Sunday from regular pay at 2709-78 feet, with a surface elevation of 2629 feet. Gulf's McElroy 1-B, in the center of the southwest of the northeast of section 187, and one and one-fourth miles east of production, encountered the top of the salt at 1220 feet. This checks low with the other wells and indicates that the structure takes a sharp dip near this point.

Production in the Chalk shallow field, Howard County, is heading for higher levels, and during the past week averaged 2315 barrels from 39 wells, with a number of good producers in process of completion. The Comet Petroleum Company's H. R. Clay 1, located in the northeast corner of an 80-acre lease and on the north line of section 154, extended the producing area a quarter mile to the southwest early this week. This test was drilled in with rotary, and logged 22 feet of richly saturated oil sand pay at a total depth of 1830 feet. A test of the production is to be made Wednesday, with prospects of one of the best producers in the field. Marland's Chalk 1-E flowed 189 barrels during 10-hour gauge Sunday from pay sand at 1675-79 feet. Bristow & Merrick's A. J. Hooks 1, located in the northwest corner of section 140, was flowing by heads and showing for a good well Monday while drilling pay at 1792-1813 feet.

Marland & Texon Oil & Land Company's Settles 1, which extended the Chalk field shallow oil horizon about six miles to the west several weeks ago, failed to get a good water shut off in setting 10-inch casing with packer at 1245 feet, with pay sand at 1230-63 feet. This well is located on the north end of Glasscock County. Six hours pumping March 17 yielded 70 barrels of 33.8 degree gravity oil, and 160 barrels was pumped during 18 hours on the following day. The well pumped 100 barrels in 12 hours March 19 and pumped off. The elevation of this well is 2646 feet, and the pay was found slightly above the Chalk pay.

Texas Panhandle Operators Fail to Agree Upon General Curtailment Program

Amarillo, Texas.—Efforts made during the past week by a number of companies and operators in the Texas Panhandle to suspend drilling operations on all tests not affected by offset drainage failed for lack of unanimous co-operation on the movement. However a number of companies holding adjoining leases have agreed to hold back new locations and curtail drilling until crude market conditions return to a normal level. A production decline and decreased drilling activity is in store for the Panhandle as result of operators in scattered areas agreeing on a shut down.

A new oil producing area for southeastern Hutchinson County was promised early this week from the wildcat test of Bain et al on the J. L. Moore land, with 1250 feet of oil in the hole from sandy lime pay at 2995-3056 feet. This test is located in the southwest corner of the northwest quarter of section 125, block 4, I&GN survey, and two and one-half miles northwest of the Roxana-Bryan field, Carson County. The above test has a surface elevation of 3169 feet, and deeper drilling will be tried to increase production. The Texas Company's Cooper 1, section 6, is the nearest test to the Bain wildcat, and oil was encountered in the Cooper test at 3330-40 feet, followed by salt water at 3360-3400 feet, with a surface elevation of 3178 feet. The Cooper test was abandoned at 3710 feet.

Six new completions for the Roxana-Bryan field, Carson County, were made during the past week, ranging from 25 to 300 barrels. Drainage in this area lately has caused a sharp drop in the initial output of new completions.

Magnolia's second producer on the C. E. Johnson land, section 40, Shamrock field in Wheeler County, gauged 20 barrels per hour during the first five hours after drilling granite-wash pay at 2330-48 feet. Magnolia's Johnson 1 was completed late last December with a flush output of 1000 barrels of 40 gravity oil at 2277-2307 feet, and is holding above 500 barrels daily. This is one of the best producers in the Shamrock field. Magnolia built one 55,000 barrel tank to accomodate its production, and is starting a second tank of like capacity in lieu of selling its oil to Humble, which has the only line in the field, at prevailing prices.

Lockport Reaches New Production Peak

Houston.—Lockport field, Calcasieu Parish, Louisiana, reached a new production peak last week by averaging 6666 barrels daily for the week ending Monday, March 21. This average was attained following completion during the past 10 days of three spectacular wells ranging from 1500 to 3000 barrels each. Following completion of Miller 13 for 1500 barrels the field's production rose to above 7000 barrels for several days.

Tom Sammons, Veteran Driller, Unloads a Few Choice Remarks About the W-K-M Core Drill

"HELLO, Tom!"

"H'lo son."

"What's going on, Tom?"

"Fixin' to drill a little deeper."

"How deep now?"

"Forty-three hundred and one."

"Say, Tom, how's that W-K-M Core Drill workin' we sent out here?"

That started it. Tom can cuss and raise H—l aplenty if there's good reason for it, but he can also chalk up a nice line of compliments when they're deserved.

"Well, son, I'll tell you about that core drill. I used her regular on every kind of formation we struck in this hole, and she never failed to bring up a good core. Course, most of our coring here is in packed sand and shale, although we did hit a a hard formation once in awhile. Me and the boys took core after core with that drill, using the same set of cutter blades that came with it. She'd come out of the hole with a core every time. When we were through the blades didn't look worn a bit.

"In fact, son, those blades are just about as good now as when we started this hole. Come over here and let me show you."

A trip to the tool house across the way, and Tom dug his W-K-M Core Drill out of the tool box, all nicely cleaned up and put away ready for the next time he needed it. For a fact, the blades looked almost as good as the day the drill left the plant at Houston. Which speaks pretty well for tool-steel blades, Stellited.

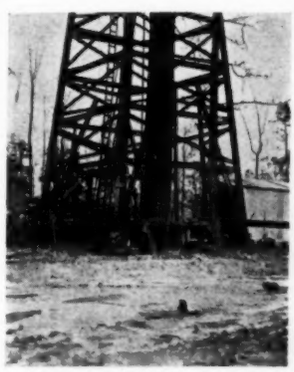
"Tom, I've got a good camera here, how about takin' a picture of you and that pet drill of yours?"

"Well, son, I just think enough of it that I'll let you do it. Go ahead and get it—but wait'll I tuck my shirt-tail in. You can tell the boys for me that if they want a real-sure-enough core drill, they can't beat this W-K-M Core Drill any at all. I've used many a one, and this is the best I've ever run. Looks like it don't cost anything to run it, and it sure does get the cores every time.

"I forgot to mention that the drill you're lookin' at also cored four feet of cap rock for us, after all the packed sand and shale cores it took. Yep, it's a right good drill, tell the boys."

And so, although it was beginning to rain and was pretty dark in the woods, I got Tom's picture and we chewed the rag a bit. Then Tom climbed back on the rig with the intention of "makin" a little hole today....," which, dollars against doughnuts, I'll bet he did.

Those who know Tom Sammons, now drilling for the S. M. Dunbar interests at Humble, Texas, and who know something about his reputation as a crack driller, will take his word about the W-K-M Core Drill, the new drill fitted with detachable tool-steel cutters, heavily Stellited. And those who don't know Tom, can prove his judgment mighty quick by running one of the W-K-M Core Drills on our liberal "satisfactory performance, or your money back" proposition. Just send today for the illustrated descriptive pamphlet.



Tom Sammons' Rig at Humble, Texas, where he is drilling for the S. M. Dunbar interests.

W-K-M Company, Inc.
Houston, Texas

W-K-M Company, Inc.
Houston, Texas.

Gentlemen: Tom Sammons' experience with the W-K-M Core Drill interests me. Send on your descriptive matter.

Name .....

Street .....

City .....

State .....

Geology of the Panuco District

By CHAS. LAWRENCE BAKER

PANUCO, with its production of five hundred million barrels of oil in the years 1910 to 1926, inclusive, is one of the world's greatest oil fields. The producing area comprises about 300 square miles and is generally divided into five sections: Panuco proper and Topila, on the south, and Ebano, Cacalillao and Corcovado on the north. An additional area of some 200 square miles on the north contains many seepages and during 1926 two producing wells were developed in the Altamira Hacienda in the northern seepage district.

Panuco is unique in its combination of some of the characteristics of a metal mining district with those of an oil field. Ingenuous intrusions and contact metamorphism have been operative, and consequently the occurrence of oil in great quantity goes far to discredit, if not entirely to disprove, the carbon ratio hypothesis. Ingenuous effects have greatly modified the oil, gas and water and appear to be largely responsible for the following peculiarities:

(1) The oil is very heavy in gravity and very high in sulphur content;

(2) The gas is mainly carbon dioxide with an important percentage of hydrogen sulphide and is not so readily exhausted as in most other fields;

(3) The water contains the highest percentage of potash salts yet found in any water occurring directly with oil.

There are in addition other peculiarities partly explainable by ingenuous intrusive effects and structural characteristics. The profitable oil occurs in limestones and only in fracture zones in the limestones which are otherwise so impervious they are practically barren. Accordingly, all wells drilled in producing areas are wildcat, the far greater proportion being failures. The profitable oil is not confined to any definite geologic horizon. No top or edge waters proper are found. All wells flow during the entire period of profitable production. No profitable method for separation of emulsion or bottom salt water from the oil has yet been found.

The field is situated on the south plunging end of the Sierra de Tamaulipas—Sierra de San Carlos anticline. This anticline is about 235 miles in length with a breadth ranging from 35 to 60 miles. The breadth of the area at present producing is 15 miles in the direction at right angles to the major anticlinal axis. The oil-bearing cretaceous formations are exposed in the mountainous portion of the Sierra de San Carlos and Sierra de Tamaulipas, and on the outcrops there are extremely few seepages.

There are a number of minor folds in the producing area, but the points of highest structure have proved rather extraordinarily poor in production and at least one of the deeper of the minor synclines has yielded large production.

THE geology of the Panuco district of Mexico has for sometime offered a most interesting subject for study and research but before the preparation of the accompanying article very little authoritative data has been published on this area.

Dr. Baker's discussion is complete and comprehensive and will form a valuable adjunct to any geological records on Mexico. The length of the article will require more space than would be possible to give in one issue so it has been divided into several sections.

The article will also be published in the Bulletin of The American Association of Petroleum Geologists.

Acknowledgments

Experience has demonstrated the great difficulty if not virtual impossibility of solving the major Panuco problems without the study of a large part of the contiguous area of northeastern Mexico, in which actual exposures afford indispensable data on stratigraphy, structure and ingenuous activity within the field itself. The study of the environs has proved an arduous and expensive task for the writer during parts of the year 1920, 1921, 1924 and 1925. The work would have been impossible without the important financial aid of Mr. L. E. Hanchett of Los Angeles and of the Southern Pacific Company through Messrs. E. T. Dumble and H. B. Titcomb. These gentlemen possessed the broader viewpoint unfortunately so rare among, and yet really so essential for the real interests of oil producers, and considered it best to permit the geologist to be his own judge of what it was necessary for a geologist to accomplish. In the present instance it will be necessary only to present results of those researches which are judged to have important bearings on Panuco field problems.

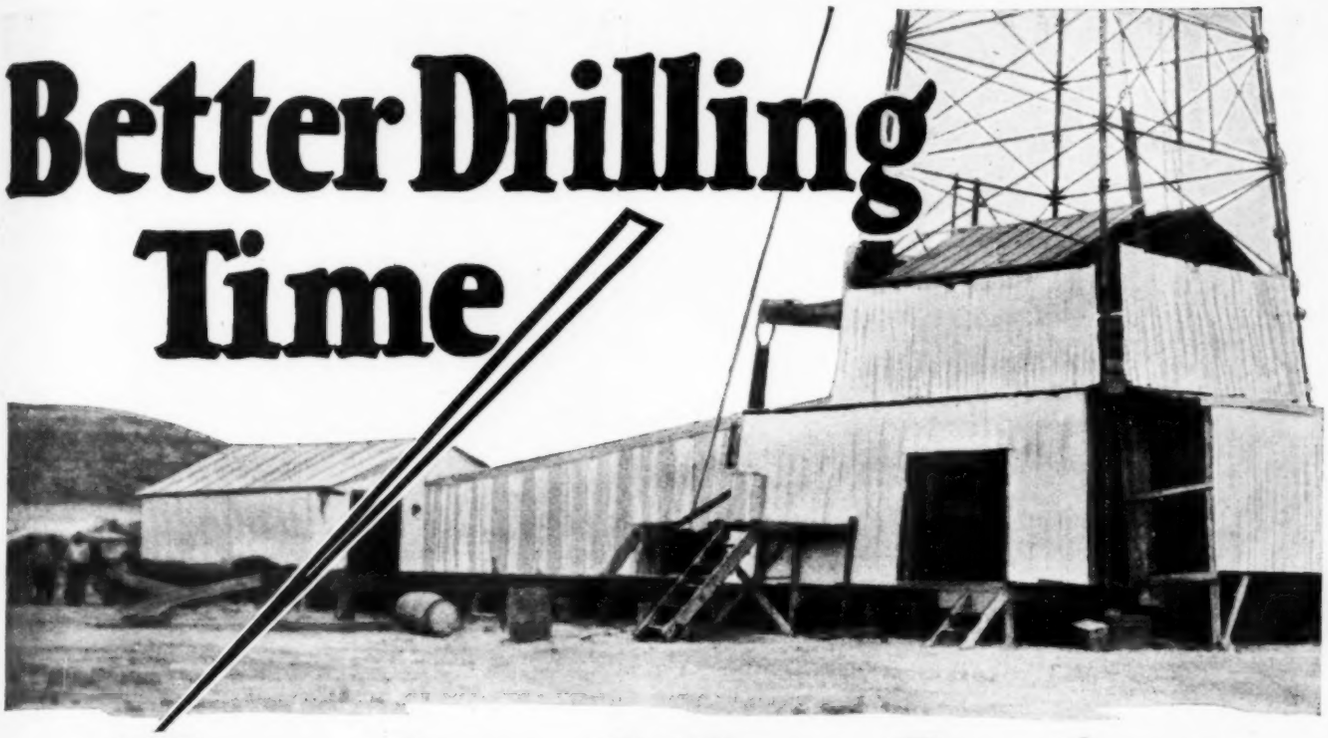
Every worker in the Panuco field owes a tremendous debt to the pioneer efforts of Mr. W. F. Cummins who, ripe in years and experience, with a surety of judgment equaled by few and with indomitable will at a time of life when most men have retired from active work, discovered and began the development of both the Panuco proper and Topila section and located and drilled the discovery well of the Mendez-Corcovado section. It is worthy of record here that the two other oil fields of Mexico, the Southern or Golden Lane and the Isthmus of Tehuantepec, were discovered by drilling on extensive seepages by the precise procedure used by a mineral prospector in finding an ordinary mineral deposit, whereas in each of the Panuco and Topila sections there existed but a single insignificant seepage which the ordinary geologist even today would esteem of little importance. Furthermore, the first wells which Cummins drilled at Panuco and Topila proved profitable producers, a most remarkable achievement viewed in the light of subsequent events. It was also in 1910, the discovery year of the northern fields, that Cummins, from a study of outcrops on the Rio de Las Virgenes and Canyon San Bartolo in the mountains of Western Tamaulipas, reached the conclusion that one of the sources, if not the main source, of the oil of the Tampico region is the upper Jurassic. Cummins maintained the cretaceous age of the San Felipe (Colorado) series at a time when other geologists were calling it Tertiary.

Cummins' policy of carrying every well in the field to a depth at which either profitable oil or salt water is encountered is one which, judged from results still being obtained on East Coast Oil Company, S. A., leases, had best be given far more serious consideration than is generally being done just at present. It was under Cummins' direction, also, that the first well was ever "shot" in Mexico, and "shooting" of wells is another matter which must be taken far more seriously in the future of the Panuco field.

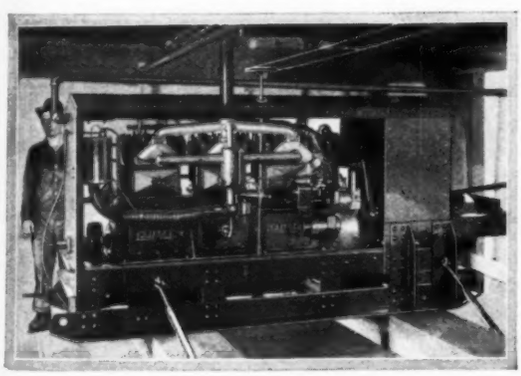
It is well to recall, also, that the East Coast Oil Company, with which Cummins and Dumble have been associated, was the first to demonstrate, with the opposition of much opinion to the contrary, the practicability of transporting the heavy Panuco crude through a pipe line, and that this same company has a record for efficiency and economy of operation which has not been equaled by any company of equal scope in Mexico.

It is most unfortunate for petroleum geology, in the progress of which the elucidation of Panuco problems is of exceptional importance, that the present paper could not be written by Mr. John M. Muir, whose detailed knowledge of the field is far more extensive than that of anyone else. The writer must apologize for great defects in his knowledge of the field itself. It has not been possible for him to devote much effort to any but the Panuco section proper and to a far less extent to the Topila section. He has, however, been very greatly aided by most of the other geologists of the Tampico region, who have co-operated with him to almost the fullest possible extent. It is perhaps invidious to make special acknowledgment to any where all have contributed so much, but he will mention in particular Messrs. John M. Muir, W. A.

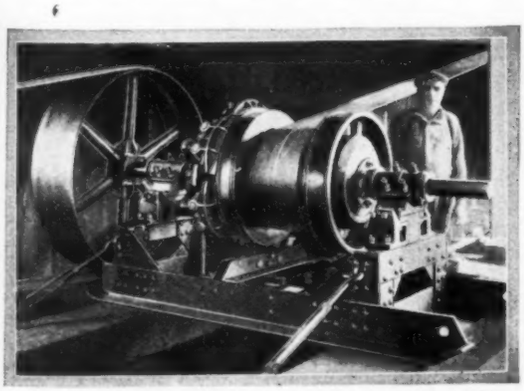
Better Drilling Time



—Than Any Other Engine



Climax Drilling Engine, 6 Cylinder, 6 x 7 inch. Uses gas or gasoline. Fully equipped, telegraphic control, etc. Engine mounted on structural steel skid frame. Weight 5,400 lbs.



Climax Reverse Clutch Unit may be driven forward or reverse through 2 clutches. Picks up load without undue shock or jar. Neutral brake holds load stationary. Clutch and brake operated by one lever, with extension running to derrick floor. Weight 4,650 lbs.

Climax Drilling Power is constantly setting up new drilling records. F. H. Scott, Producer of oil and gas, 516-517 Dan Waggoner Bldg., Fort Worth, Texas, while drilling for Marland Oil Co. of Texas, writes:

"It is with pleasure that I write you this letter advising you that our Climax Drilling Engine purchased from you this last summer, has given us more than excellent satisfaction. We have drilled a number of wells with this Engine and have made better drilling time than with any other Engine that we have working at this time.

"We drilled one of our recent wells to a depth of 2265 feet in approximately 20 days. We set three strings of casing and pulled two. Your Engine is the nearest to steam of anything that we have found to date, and with the low cost of fuel consumption and its excellent service, we wish to state that we are more than pleased to be the owner of a Climax Engine.

"We are anticipating equipping other strings with Climax Engines in the near future."

CLIMAX *Trade Mark Reg. U. S. Pat. Off.*

DRILLING POWER

gives ideal drilling motion, handles any size string of tools, stalls when tools stick—same as steam, uses less than one-half barrel of water per 24 hours, operates on gasoline or natural gas. Economical and efficient under normal drilling conditions, it is a necessity where water is bad or scarce and fuel costly.

Write for Bulletin H

CLIMAX ENGINEERING CO., Clinton, Iowa

Gentlemen: Send me Free Bulletin H describing your Climax Cable Drilling Units.
Also give me a list of installations where I may see these Units in operation.

Name.....

Address.....

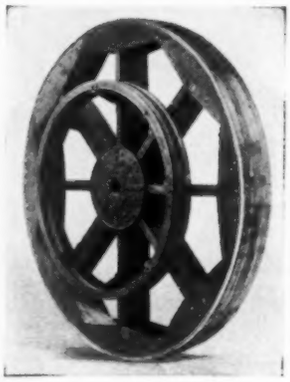
Operating in.....Field
o w

CLIMAX ENGINEERING CO. CLINTON IOWA

Climax Oil Field Units Are Distributed Exclusively by

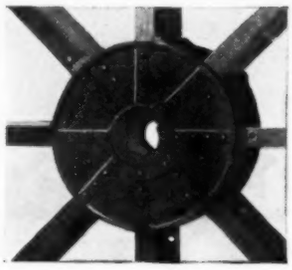
THE NATIONAL SUPPLY COMPANIES

Exclusive Foreign Oil Field Distributors: THE NATIONAL SUPPLY CORPORATION
120 Broadway, New York, N. Y. 165 Queen Victoria St., London, E. C. 4, England



Moore Steel Band Wheel

Built for long, hard usage. Steel plate rims, one-piece rolled steel tug rim, rolled steel channel spokes, one inch face wood cants. Stocked in 10′, 11′, 12′ diam. with 12″ and 15″ face.



Riveted Flanges

The flanges are securely riveted in place; angle reinforcements give additional strength to spokes.

Moore Steel Tug Rim for Wooden Band Wheels

One piece, double V groove, rolled steel rim. Diameter 7′.

Other Moore Products

Steel Derricks
All Steel Drilling Rigs
Crumley Pumping Rig Units
Steel Pitmans · Crown Blocks
Steel Walking Beams

World Wide Service for Twenty Years

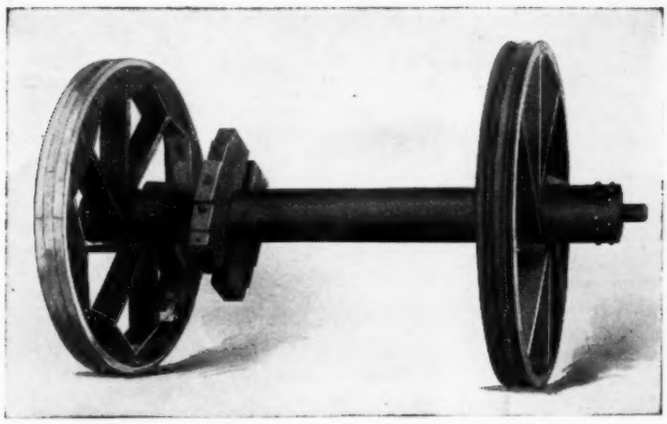
Here is the
MOORE STEEL
BULL

THESE features are responsible for the long continued service rendered by Moore Steel Bull Wheels under all conditions:

1. Heavy shaft—½ inch wall is our standard thickness
2. Shaft expanded and shrunk over gudgeons
3. Gudgeons securely riveted in place
4. One piece, rolled steel, double groove tug rim
5. V groove tug, giving maximum pulling power
6. Tangent spokes, exerting direct push on shaft
7. Flanges of spokes trimmed, for easy assembly

The thousands of Moore Steel Bull Wheels, doing their work practically without repair or maintenance expense, testify to their success.

Moore All

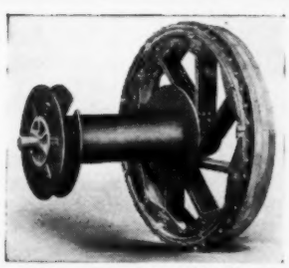


The Moore Steel Bull Wheel

Extra heavy shrunk shaft; riveted gudgeons; one piece V groove tug. Standard wheels 13' 6" shoulder to shoulder; either 16" or 18" diameter shaft; 5" diameter x 6" trunnions; 9" or 12" face brake wheel. *Conforms to A. P. I. dimensional Standards.*

Spoke Construction

Flanges of spokes are trimmed to facilitate assembly. Spokes are tangent, giving direct push on the shaft. Shaft is shrunk on and gudgeons riveted.



Moore Steel Calf Wheel

Extra heavy steel pipe shaft, shrunk and riveted on gudgeons. *Conforms to A. P. I. dimensional standards.* Channel steel spokes, bolted tangent to shaft.

STEEL RIG EQUIPMENT

LEE C. MOORE & COMPANY, *Inc.* PITTSBURGH · TULSA

Established 1907

DALLAS, TEXAS HOUSTON, TEXAS WICHITA FALLS, TEXAS ISOM, TEXAS PARKERSBURG, W. VA.
CASPER, WYO. SHREVEPORT, LA. EL DORADO, KAN. EL DORADO, ARK.

Baker, Jr., Paul Weaver, Walt M. Small, W. F. Cummins and E. T. Dumble.

Surface Features

Strata of upper oligocene or lower miocene age outcrop on the east and south flanks of the upper or productive part of the major anticline but only at Topila within the area of present production. The innermost exposures of these strata form escarpments above the flat lowlands of the main present producing area. The Panuco River, an extremely tortuous and meandering stream, flows from west to east through the field and has excavated a valley bottom averaging 20 miles across. Many former channels of the river as well as channels filled only during times of flood are the sites of permanent or temporary lagoons, tidal estuaries, bayous and swamps. During the months of July to January, inclusive, most of this bottom land is either covered with water or so muddy that heavy transportation is nearly impossible. The tide extends up the river for a number of miles farther west than the oil field. The river alluvium is mostly from 100 to 250 feet in depth. It consists of fine silty and sandy material derived from the erosion of cretaceous marls and limestones and Velasco and eocene shales and sandstones and of local lenticular layers of chert gravel derived from cretaceous limestones in the mountains. In the eastern part of the field the silts and gravel contain numerous brackish water shells. The silts and gravels have filled in part a former embayment of the gulf and in part a broad lowland which has gradually sunk as deposits accumulated.

In that part of the northern sections occupying the divide between the Panuco and Tamesi rivers the Pierre and Velasco marls are exposed and the topography is very gently rolling with broad, low, smooth-contoured hills.

In Ebano are two abrupt knolls of higher elevation, outcrops of basaltic intrusions. Remnants of gravel terraces form a few low hills or broader upland flats in the Panuco valley.

In Lafayette time a peneplain was developed over many thousands of square miles. A second and lower stage of peneplanation is now well advanced and its formation has been extensively aided by a recent downwarp of the land. In addition to the hills and ridges already mentioned monadnocks rising above the general level owe their existence to the superior resistance of their basaltic rocks. The Sierra de Tamaulipas proper is flanked by outwash gravel fans of Lafayette age, which have been firmly cemented with caliche. Most of these fans are in process of a dissection which has long been active.

Erosion is a relatively rapid process in the loosely consolidated upper cretaceous and tertiary rocks of most of the region, rainfall being both torrential and abundant with an annual average of 36 inches at Tampico.

Stratigraphy of the Panuco Section Proper

So far as known the stratigraphic succession consists of a formation, the Velasco, of either upper cretaceous or lower eocene age, a full section of the entire cretaceous from the top of the Pierre to strata older than the lower Trinity of the Texas section, a portion of the upper jurassic, a limestone of unknown age separated by a conglomerate from the upper jurassic and red beds of unknown age separated by an unconformity from the everlying strata. There is possibly at Altamira an unconformity separating the upper jurassic from the pre-Trinity cretaceous, but jurassic and cretaceous are probably conformable under the present field. It is very probable that the cretaceous section is conformable throughout. Volcanic tuffs are abundant from the base of the Benton to the top of the Pierre cretaceous and may occur in the Kimmeridge upper jurassic. The section which will be described is that of the Panuco section proper.

Correlations

The upper cretaceous of Northeastern Mexico is most closely related to strata of the same age in the Great Plains and Rocky Mountains of the United States. Equivalent strata have been given other names in Texas, but the Texas names are superfluous, contrary to the rules of priority and tend to confuse the reader. The upper part of the Mexican lower cretaceous is closely related to the Comanchean cretaceous of Texas and for this part Texas names will be used. However, the lowest part of the Mexican cretaceous is not represented in Texas, except in a small area in the Malone Mountains and Shafter district, where it is not yet satisfactorily differentiated paleontologically. For this part of the Mexican section there is no satisfactory alternative except to use the standard European nomenclature which also is most suitable for the marine upper jurassic.

A two-fold division of the cretaceous into upper and lower is used following therein the usage of most American authors. The dividing line is taken at the base of the Benton of the standard American section or of the Tuorian of the standard European section. The three-fold division of the cretaceous into lower, middle and upper, as used by Haug and others for Europe, is really the most suitable for Mexico but with this classification the dividing line between lower and middle is drawn within the Trinity or lowest group of the Texas Comanchean. The pre-Trinity stages of the Mexican cretaceous in descending order are the Barremian, the Hauterivian, the Valanginian and the Berriasian. The Hauterivian and Valanginian have generally been grouped together in Mexico, and the Berriasian basal stage of the cretaceous is not so far as known abundantly fossiliferous and has sometimes been described as jura-cretaceous transition beds.

Up to the present only the upper jurassic is known in the marine section of Northeastern Mexico. This is divided as usual in descending order into the Portland, Kimmeridge and Oxford.

Velasco Bentonite Marl

Velasco, the type locality of this formation, is a station of the Tampico-San Luis Potosi Railway to the west of the Ebano section. None of the Velasco formation is found in localities of highest structure in the Panuco field, but the lower part of it is found directly beneath the alluvium in most of the fields. It increases progressively in thickness in descending the flanks of the main anticline.

In lithology the Velasco in the wells differ little if at all from the underlying Pierre. The age of the Velasco is in doubt since foraminifera are the only fossils known from it. Some geologists and micropaleontologists think it may be separated from the Pierre by an unconformity, but the unconformity has not been proved and the question can only be settled definitely by continuously coring the necessary interval in a number of wells. A partial attempt has been made to do this in two East Coast Oil Company wells. In these no appreciable difference in lithology could be detected, and no evidence of a stratigraphic break was found between the lower Velasco and the upper Pierre.

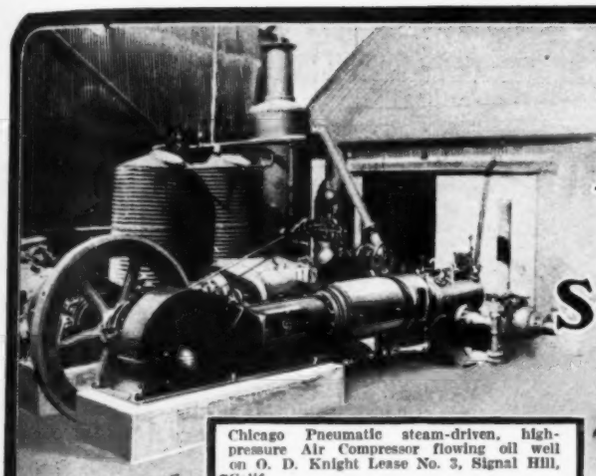
It is not certain that what has been called Velasco on the outcrop is the same as what is called Velasco in the wells. The main outcrop area of the Velasco is in the great geosyncline between the Sierra de Tamaulipas anticline and the eastern front ranges of the Mexican Cordillera proper, (Sierra Madre Oriental). Here the strata contain considerable detritus derived from erosion of land areas. At the foot of the western flanks of the Sierra de Tamaulipas and Sierra de San Carlos this facies of so-called Velasco rests uncomformably upon the Pierre. The best outcrop section known of what has been regarded as Velasco east of the Sierra de Tamaulipas anticline is exposed on the Soto la Marina River between the towns of Soto la Marina and Abasolo, and here the strata do not contain the land-derived de tritus and are practically indistinguishable from the underlying Pierre. However, the land at the time of deposition of the strata in the geosyncline lay to the west in the present Mexican Cordilleran region, and detrital material may not have been transported so far east as the eastern foot of the Sierra de Tamaulipas.

West of the geosyncline and the easternmost front ranges in the country traversed by the Tampico-San Luis Potosi Railway, between the head of the Tamasopo Canon and the Puerto-Villar pass, which includes the Cardenas area, the Pierre is overlain conformably by Fox Hills strata which contain the most abundant and diversified marine fauna known in the Mexican cretaceous. The Fox Hills strata there contain numerous calcereous sandstone beds, some fine conglomerates and a large amount of sandy argillaceous shale and marls.

Neither these certainly Fox Hills strata nor the so-called Velasco strata of the geosyncline appear to contain any volcanic tuffs. This is certainly significant since the Pierre of all these regions and the so-called Velasco penetrated by the drill at Panuco contain volcanic tuff in abundance.

The micro-fauna of the type section in the vicinity of Velasco station has been studied by a number of micropaleontolo-

CP
Air Compressors Boosting Seminole Production



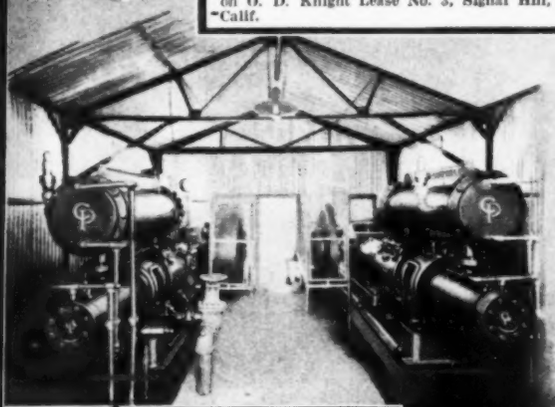
Chicago Pneumatic steam-driven, high-pressure Air Compressor flowing oil well on O. D. Knight Lease No. 3, Signal Hill, Calif.

SEMINOLE OIL POOL REACHES NEW PEAK

Produces 299,860 Barrels From 232 Wells.

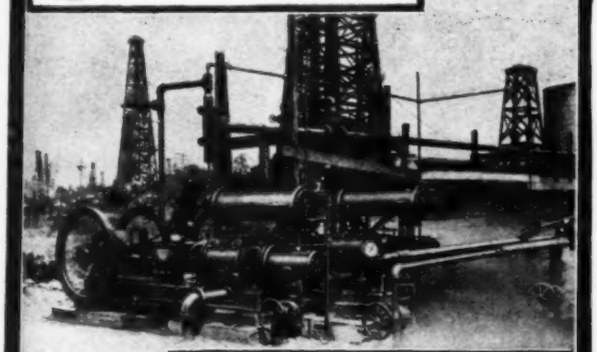
Special Dispatch to THE SUN.

TULSA, Okla., Feb. 15.—The Seminole area reached a new high mark in production yesterday when output of 232 producers made 299,860 barrels in the twenty-four hours ended at 7 o'clock A. M. This represents a gain of 70,494 barrels in production and of twenty-six completed wells during the first two weeks of February.



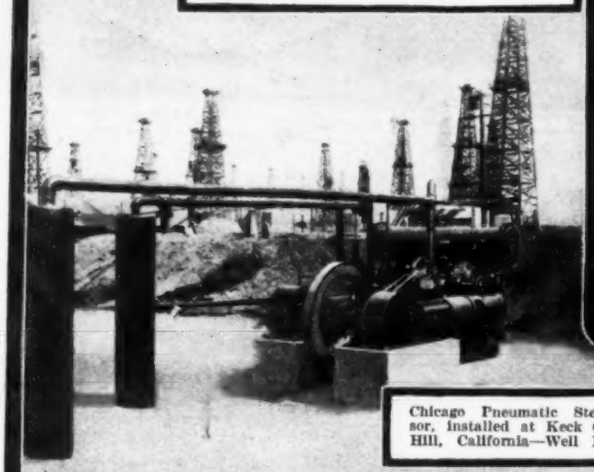
Two CP two-stage electric motor driven Compressors, installed for one of the major oil companies in the Garber, Okla., field, cutting operating cost in excess of 47 per cent.

AND up in Montana, they are using CP Compressors. First well equipped was under the conventional system, producing 700 bbls. fluid containing 80 bbls oil—now pumping 1600 bbls. fluid, 570 bbls. oil. Second well formerly pumped 600 bbls. fluid with only a trace of oil, now pumping the CP way, 1900 bbls fluid—114 bbls. oil. Third well pumping 800 bbls. fluid—80 bbls. oil is now delivering 5,000 bbls. fluid exceeding 1000 bbls oil.



Chicago Pneumatic Two Stage, Straight-line, Steam-driven Compressor; two of six installed for General Petroleum Co., on Twin Bell Lease, for the flowing of six oil wells.

CP Air Compressors are extensively used in oil field service on account of their ruggedness, ease of portability, dependability and the wide range of cylinder sizes available to meet changing conditions. CP Engineers will be glad to help you determine the size and type machine best suited to your requirements.



Chicago Pneumatic Steam-Driven Compressor, installed at Keck Oil Syndicate, Signal Hill, California—Well No. 1.

Chicago Pneumatic Tool Co.

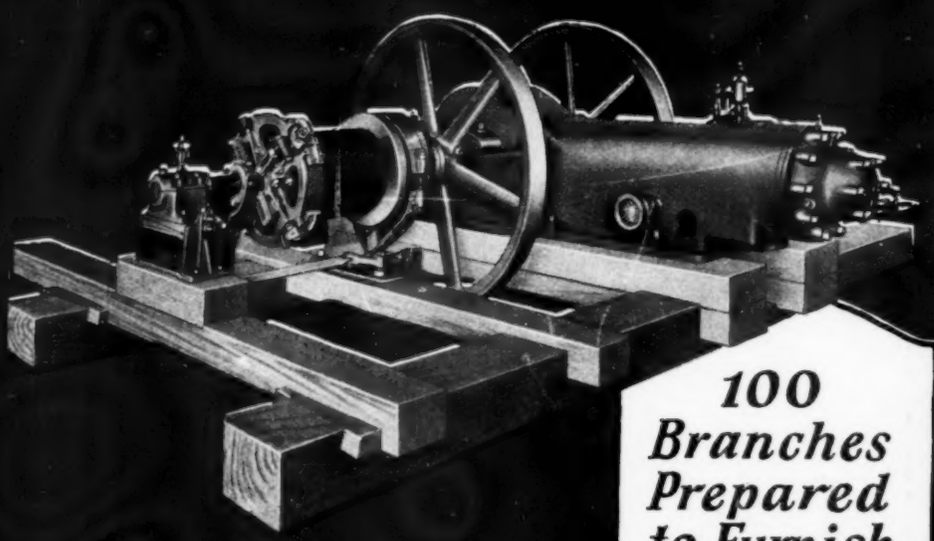
Sales and Service Branches all over the World

6 East 44th Street, New York, N. Y.

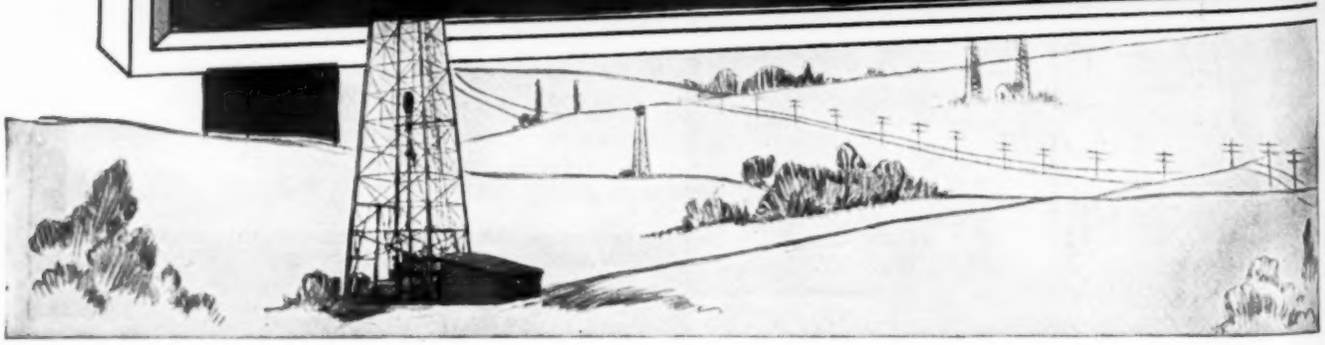
WHEALTON AND TOWNSEND, INC., Authorized Distributors, Higgins Bldg., Los Angeles—120 E. Brady St., Tulsa—1415 Fannin St., Houston

Announcing

OIL WELL



100 Branches Prepared to Furnish Franklin Valveless



Say you saw it in The OIL WEEKLY

the welcome news
SUPPLY CO.
are Sole Distributors fo
FRANKLIN
VALVELESS
ENGINES

gists, but they do not agree upon its age. Some refer it to the Fox Hills (Navarro) of the upper cretaceous; others judge it to be lower eocene of various stages from Midway to Claiborne. It would be premature to accept the judgment of any of these since the true value of foraminifera alone in making long distance age-correlations remain to be proven. Foraminifera have proven valuable for local correlations, but this phylum of animals are susceptible to bottom and water conditions, effects of currents and to changes of temperature like any other, and it is really only exceptionally that a single class of invertebrates, like the graptolites and ammonites, can be confidently trusted for long distance correlation.

In brief, therefore, the strata termed Velasco within the Panuco producing area may be either Upper Pierre or more probably Fox Hills in age or it is possible they are Lower Eocene in which latter case a considerable break in time must separate them from the underlying Pierre. Lithologically, they apparently belong to the Upper Cretaceous conformable sequence.

Upper Cretaceous, Its Nomenclature, Correlation and Thickness

Strata certainly known to be Upper Cretaceous will herein be divided into the Benton, Niobrara and Pierre, the original names for these formations in the western interior region of North America. There is no doubt of the substantial equivalency of the formations so named in the Panuco district with those of the same name in the Great Plains and Rocky Mountains. We have already noted that the Pierre is conformably overlain by abundantly fossiliferous Fox Hills in the Mexican mountainous region west of the Panuco Field. The formation referred to the Benton has yielded the characteristic fossil *inoceramus labiatus* both from Panuco wells and outcrops to the north and west. These Benton beds in the easternmost Mexican Front Ranges are known to overlie the Buda with *pecten roemeri*. Outcrops in the Sierra de Tamaulipas of the strata herein referred to the Niobrara have mosasaur bones and the giant *Niobrara inoceramus* of Western Kansas and the Rio Grande.

The formations as herein delimited very possibly do not exactly coincide in upper and lower limits with those of the Upper Cretaceous type region. They would scarcely be expected to be the exact lithological equivalents and large fossils are very conspicuously rare in these formations in this part of Mexico. What we have herein chosen as most suitable for the top of the Pierre may not prove to be exact top and most of the micropaleontologists consider what we here group with the Pierre as its lower part to be Upper Austin of the Texas section. What is of most utility for our purposes is the grouping of the strata into the most logical lithologic units. It has been demonstrated beyond doubt that in this part of Mexico the three-fold subdivision based on the most marked difference in lithology, correlates at least in the main with the three-fold subdivisions Benton, Niobrara and Pierre of the type region of the Upper Missouri Country.

The Pierre formation of this description was first named Papagallos by Cummins and soon after called Mendez by Jeffreys. The type locality of the latter term is Mendez Station on the Tampico-San Luis Potosi Railway where the upper strata of terra-cotta color (pink or red) outcrop. There has been a tendency among some of the geologists in the Tampico region to restrict the term Mendez to these upper strata of the writer's Pierre and this action is to be commended.

The Colorado group (Benton and Niobrara) of this part of Mexico, was originally named the San Jaun by Cummins and the San Felipe by Jeffreys. Later on the term Tamasopo came into general use for a thick limestone believed to underlie the Colorado group, but later work, both by actually tracing the beds and the obtaining of definite fossils evidence, has proved the Tamasopo in its type locality in Tamasopo Canyon to be a pure solid limestone facies of the Colorado group. If the term Tamasopo is worthy of survival it is merely as a facies term.

It is a difficult matter to assign definite thicknesses to the different Upper Cretaceous formations underlying the Panuco Field. Variations in thicknesses and possible explanations for such will be considered more fully in the section of this work devoted to structure. It will be sufficient for the present to give the more normal thicknesses in wells of the East Coast Oil Company in the Panuco section proper. The thickness of the Pierre here varies from 1040 feet to 1640 feet and of the Colorado group from 280 feet to 425 feet with the more usual thickness of 320 feet to 330 feet. The thickness assigned to the Niobrara part of the Colorado group is approximately 130 feet.

Pierre Bentonitic Marl

An examination of core samples from a section of the Pierre 1150 feet in thickness shows that formation to be remarkably homogeneous. Other well samples and outcrop studies verify this. The material is marl composed of foraminiferal remains with a minor percentage of finely crystallized calcite and and a large amount of altered tuffaceous material. The latter is present in every sample as a residue after dissolving out the calcareous matter with dilute hydrochloric acid. There are zones which contain abundant biotite mica in brown to blackish-colored cleavage flakes with jagged edges. The tuffaceous residue examined under the microscope is seen to be a very fine, flocculent, isotropic, glassy substance with markedly linear shape. It resembles palagonite except it is lighter in color. The substance is really bentonite and appears exactly the same as the more or less pure beds of bentonite interbedded with the marls throughout the section. The colors of the purer bentonite are generally a light dirty grey, but some of them are greenish, reddish or purplish. The purer bentonite always has its characteristic unctuous appearance. Some of the bentonite is spotted, in which case the original volcanic tuff is probably less completely altered. Small rounded concretionary pellets of powdery calcium carbonate are found in some of the bentonite beds and all the bentonite contains some calcareous material. There are also beds of relatively unaltered white volcanic ash. The original tuff must have formed a very large part of the whole formation, certainly not less than one-fourth and possibly one-half of it.

The acidic composition of the volcanic tuff is indicated by the light shades of color of both altered and unaltered material. The real composition of the volcanic ash is demonstrated by a sample from a depth of 1220 feet (745 feet above the top of the Washita) from East Coast Oil Company Well M-27, Laguna de la Milpa. This consists of grains of glassy sanidine, with some perhaps of acidic plagioclase, quartz and flakes of biotite in a matrix of milky white bentonitic substance. The ash therefore is rhyolitic. The quartz, feldspar and mica have very irregular angular surfaces and are fairly coarse in texture. This shows crystallization already well marked in the viscuous magma at the time of the outburst and since the grains are not waterworn to the slightest degree, the explosion occurred nearby and was probably sub-marine. There are also the same minerals present in the same condition in Corona No. 1 well, Topila field, at a horizon near the top of the Pierre.

A few small nodules of black oxide of manganese are found. A careful search in the core sample failed to show a single mineral particle of terrigenous detrital origin.

The top member of the formation as herein delimited is of the color of lightly burned terra-cotta tile. In the Panuco section proper this member is logged as being from 20 feet to 100 feet in thickness, but is probably really from 40 to 50 feet thick. This member thickens northward. A second member of the same color is logged lower down in a number of the wells and likewise a third member at a horizon about 400 feet above the base of the formation. The first member appears to be persistent throughout the field, but the other two are not and they may be nothing more than local admixtures of reddish bentonite.

The rest of the marl is grey to greenish-grey in color. The lower part is generally the more consolidated.

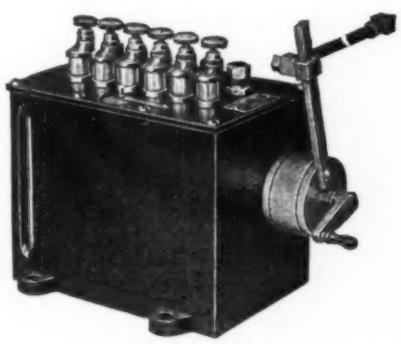
The Pierre carries an abundant foraminiferal fauna. The foraminifera in the reddish upper zone are better pre-

BOWSER ESTABLISHED 1885

The Model T lubricator is high-class but moderate-priced. It is built entirely of machined parts. There are no stampings used. All moving parts are constantly lubricated with a maintained-film of oil.

Model T lubricator is supplied for sizes from one to twenty-eight feeds—more if needed. Either ratchet or worm-gear drive can be supplied.

Each lubricator is tested against a 2000-pound pressure, so that Model T provides full and absolutely dependable lubrication. Model T is thus particularly applicable for installation on oil-engine-driven pumps.



There are several descriptive circulars that tell about Bowser's complete line of lubricators, as well as all about Model T.

For copies of this literature address Dept. 73.

S. F. BOWSER & COMPANY, Inc.
LUBRICATION ENGINEERS AND MANUFACTURERS
FORT WAYNE, INDIANA, U.S.A.

LUBRICATORS—OIL FILTERS—OILING SYSTEMS—ACCESSORIES
OIL STORAGE AND DISTRIBUTION SYSTEMS

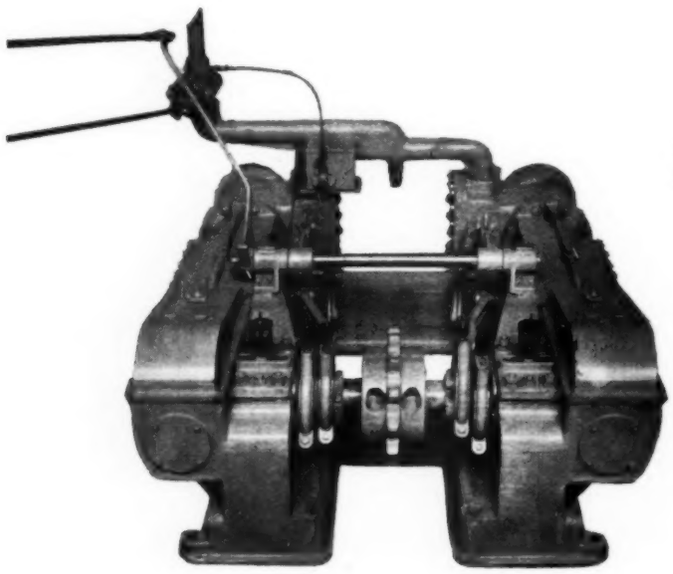
The Most Advanced Oil

The Ideal-Ajax 10 x 10 Twin

is now manufactured with Enclosed Crankcase

The advantages of splash lubrication, first introduced to oil field steam engines in the Ideal - Ajax 12x12 twin, have caused insistent demands for the enclosed type 10x10.

These demands are now met in the new Ideal - Ajax. Like the larger model this engine gives complete splash lubrication of piston rod, cross head guides, cross head pin, crank pin and main bearings.



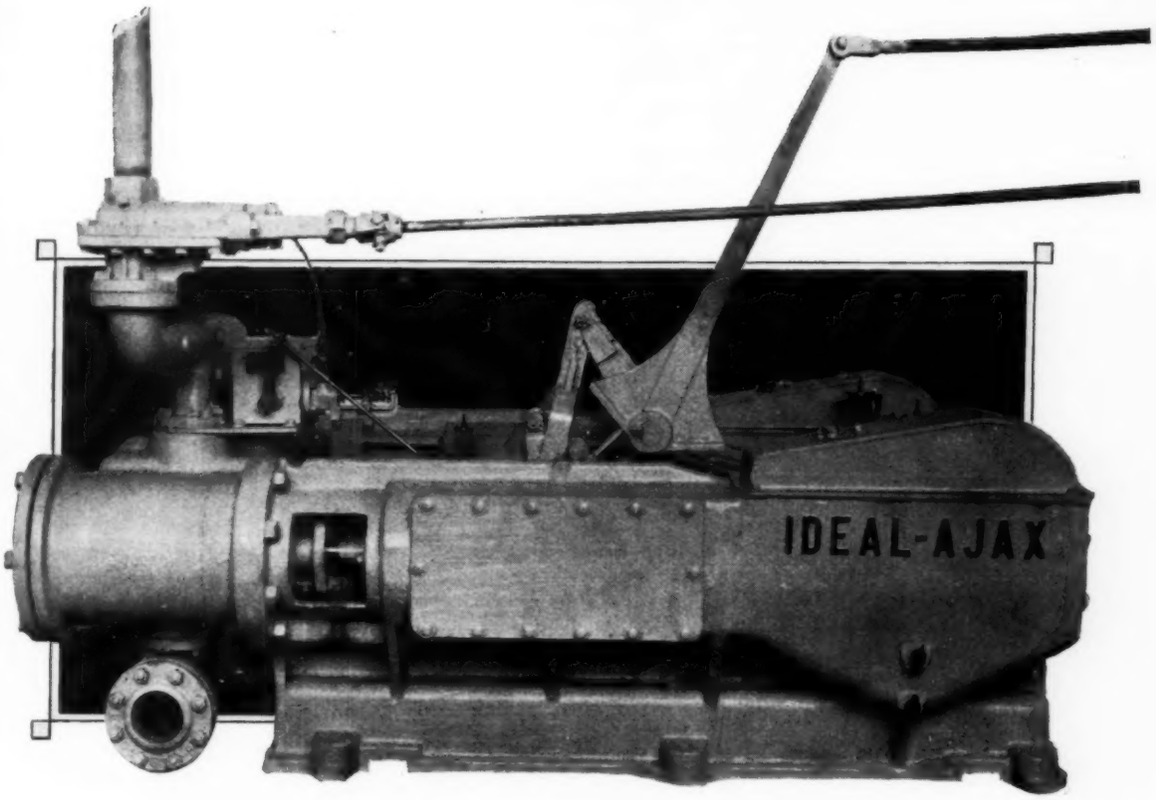
Ideal-Ajax 10x10 Twin Drilling Engine with Enclosed Crankcase

AJAX ENGINES

IDEAL DRILLING

Say you saw it in The OIL WEEKLY

Well Drilling Engine . .



In addition the new 10x10 has new refinements which have just been developed for Ideal-Ajax Engines. These include redesigned frame castings with holes for holding-down cable, bronze bushing between eccentric links and straps, and a new reverse link lifter that makes reversing easier.

See the Ideal-Ajax 10x10 at all National Supply Company Stores.

Made by
AJAX IRON WORKS
Corry, Pa.

Distributed by
NATIONAL SUPPLY COMPANIES
In every oil field

-AJAX ENGINES

Say you saw it in The OIL WEEKLY

served, larger and perhaps more numerous than elsewhere. Inoceramus cf. I Vanuxemi has been found in a core from the lower Pierre in one of the East Coast Oil Company wells. The lower part of the formation drills more slowly than the rest. When this more consolidated portion is reached the formation is generally logged as "lime shells", and the top of these "lime shells" taken to be the top of the San Felipe. Continuous core samples, however, show that such "shells" or interbedded layers of limestone do not exist. The core samples also show there is no bedding or lamination in the entire formation aside from the upper and lower surfaces of the more purely bentonitic interbeds.

There is generally from 10 to 60 feet of green and grey bentonite at the base of the Pierre.

Niobrara Bentonitic Chalky Limestone

The Niobrara is a light green, foraminiferal, chalky, imperfectly consolidated limestone with numerous interbeds of bentonite which are prevalently purplish, reddish or greenish in color. The calcareous matter is not pure, but intermixed with bentonitic tuff. The texture is prevalently fine-grained, but part of the rock exhibits fairly large crystal faces of calcite. Thin shells of fine-grained whitish or pinkish purer calcareous material are rather abundant in drilling samples. These appear to be thin seams bounding the bentonitic layers and coating the bedding planes of limestone. Both Benton and Niobrara limestones are mottled with blotches of lighter and darker shades.

W. A. Baker, Jr., divides the Niobrara section of the entire northern fields from top to base as follows:

(A) 30 feet—60 feet—green, largely fine-grained, brittle-fracturing, rather dense light green chalky limestone, in cores well stratified in two to six foot beds separated by two to 10-inch beds of green and dark grey marls, bentonitic marls, a mixture of white, green, pink and lilac-colored calcite and tuff. Locally some of the tuff is silicified into a dense, hard, brittle porcellaneous material.

(B) 100 feet—240 feet—green limestone as (A) above with occasional interbeds five to 10 feet thick of very light grey limestone, with other interbeds as in (A) above. In addition, there are layers from two to 18 inches thick of white tuff.

(C) 20 feet — 60 feet — limestone, green, with thin interbeds of light and dark grey limestone, marl and bentonite.

Bentonitic Limestone and Interbedded Bituminous Laminated Strata of The Benton

The most marked lithologic distinction between the Benton and Niobrara is the presence in the former of thin interbeds of dark blue-gray to black laminated foraminiferal and very bituminous more or less altered volcanic tuff. These are consolidated in greater degree than the tuffs in the higher formations. The relative percentage of the thinly laminated strat increases rather gradually from the top towards the bottom of the formation; the total amount is from one-eighth to one-fifth of the total thickness. The lower 30 to 85 feet contains interbeds of darker color.

The limestones of the Benton are denser than those of the Niobrara. In color they are various shades of grey, gradually changing into very light grey or greyish-white through the lower 50 feet. The limestone contains a notable admixture of tuff and is also very foraminiferal.

The lower 50 feet of the Benton in the Panuco section proper contains, a small amount of nodular dull brownish-black chert. This chert is found through an interval of approximately 100 feet in the Topila section. There is also a dove-colored or light grey dull chert found approximately 30 feet above the base of the Benton in Panuco proper. Near this in the section is also a light grey, very dense and fine-grained silicious limestone, at 25 to 30 feet above the base. Very small botryoidal masses of radiating fibrous bluish-white mineral insoluble in hydrochloric acid are frequently found at the base of the Benton.

The lowermost beds of Benton tuff are of a bright and deep green in color and more compact in texture than somewhat similar beds above. This color is caused by chloritization, the chlorite apparently derived from altered biotite.

The basal Benton stratum is noteworthy as being the oldest[1] appearance of tuff in the Cretaceous deposits, and also as affording an indication of the manner in which the deposition of volcanic ash began in a sea botton where calcareous oozes were accumulating. The rock is finely and imperfectly laminated and contains a high percentage of limestone. The ash is in small ball-like masses flattened in the plane of the laminations. These balls are of various colors: white, light grey, dark grey and a dull green. Under the microscope the matrix is seen to be calcite and the balls themselves to be more or less altered phases of bentonitic tuff.

Lower Cretaceous Limestone

Our knowledge of the Lower Cretaceous of the Panuco section is very fragmentary since there are no continuous core samples.

There is no evidence of an unconformity between the Washita and Benton either in the oil fields or in outcrop sections in the mountains. There is a perfectly gradational sequence in the succession; some of the lower Benton limestones are only distinguishable with difficulty from those of the Upper Washita, the main distinction consisting in the slightly darker color of the former. Some of the limestones in the lower 50 feet of the Benton have the same hackly and conchoidal fracture and are substantially as brittle and densely fine-grained as is the Upper Washita limstone. The chert in the Upper Washita is, however, either dark smoky color and translucent or milky white, almost transparent, and nearly always shows a shining lustre. A little lower down the chert becomes dark brown to black and has a shining lustre. In continuous core samples there is no difficulty in distinguishing the contact between Benton and Washita since volcanic tuff is absent from the latter but in standard or rotary drilling samples the bentonite higher up is continually expanding and slaking upon becoming moistened and thereupon falls into lower levels of the hole.

The uppermost Washita limestone is extremely fine-grained and dense. It fractures into smooth-surfaced fragments nearly as sharp and angular as does glass or flint. It has much the aspect of the very finest porcelain. The color is a creamy white. This rock is somewhat porous and without its porcellaneous appearance and characteristic brittle fracture in the portion of highest structure on the Ingenio lease where it is presumed to have undergone some alteration.

The limestone changes to light brownish-grey, less dense, and breaks with a rough-surfaced fracture about 40 feet below the top of the Washita. A section of the rock from 65 feet below the top shows the limestone to be very finely crystalline, almost amorphous, with the exception that foraminiferal skeletons are filled with transparent crystalline calcite.

Few other details of the Washita succession of Panuco are now available and it will be necessary to give a brief description of the section exposed in the Sierra de Tamaulipas which has been studied in some detail by Dr. E. H. Sellards. Thert, the upper 138 feet, representing very probably the Buda and Del Rio of the Texas section, is relatively thin-bedded and characterized in particular by irregular wavy btdding and by an abundance of black chert. The chert seldom makes up entire layers, but rather is included within the limestone. The flint shows also a tenedncy to nodular development, the nodules being often either disconnected or connected into irregular layers; at the base there is gradation through some dark-colored layers into the lighter-colored limestone of the Georgetown.

The Georgetown limestone in the Sierra de Tamaulipas is 305 feet thick. It is creamy-white, close-textured, hevy-bedded limestone with many styliolites parallel to the bedding. It con-

(Continued on page 112)

[1] D. A. Powell, however, reports a stratum of bentonite in the upper 100 feet of the Washita in one of the La Aguada wells.

It's a Wilson

Wilson Elevators
Give Proper Load Distribution

Note the rigidity of the Wilson Double Extra Heavy Speed Elevator

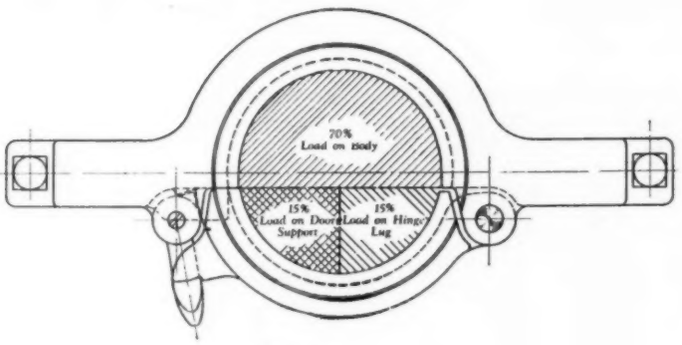


Figure 1.

The body carries most of the load

The rigid body is so designed that it carries the greater share of the direct load. The rim of the body carries approximately 70% of the load (Fig. 1), while the balance of 30% is divided and is carried upon the lug support on which the door rests when latched and the hinge lug. Therefore, only 15 per cent of the load is carried on the door support and 15% on the lug, overcoming direct leverage upon the hinge pin or latch proper. There being no leverage action, it stands to reason that the rigid body is free from distortion.

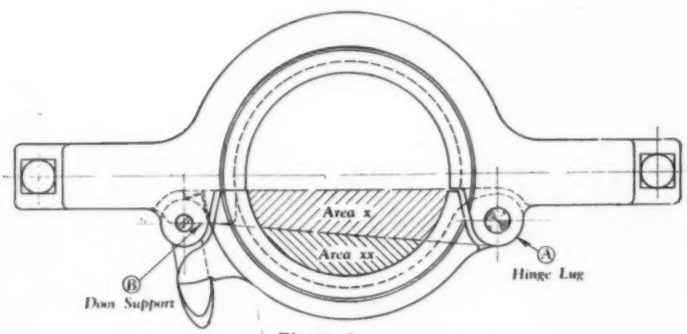


Figure 2.

The door load is counterbalanced —bridge-like!

The 30% door load is analyzed still further by Fig. 2. Observe that the bearing point at the hinge lug (A) is placed in such a position in relation to the opposite bearing point (B) that the load is divided and equalized. Thus the load in Area X is approximately equal to the load in Area XX, so that instead of imposing all of the load on the outer arc of the door, it is counterbalanced on each side of the bearings (A) and (B) which prevents either spreading or diminishing of the true circle. There is no direct leverage action upon latch, hinge pin or door. The load is carried bridge-like

Wilson Oil Tools Corp.
DISTRIBUTORS FOR
Wilson & Willard Mfg. Co.

Factory and Distributor's Office It's a Wilson 2301 East Vernon Ave.
Los Angeles, Calif.

SALES OFFICES:

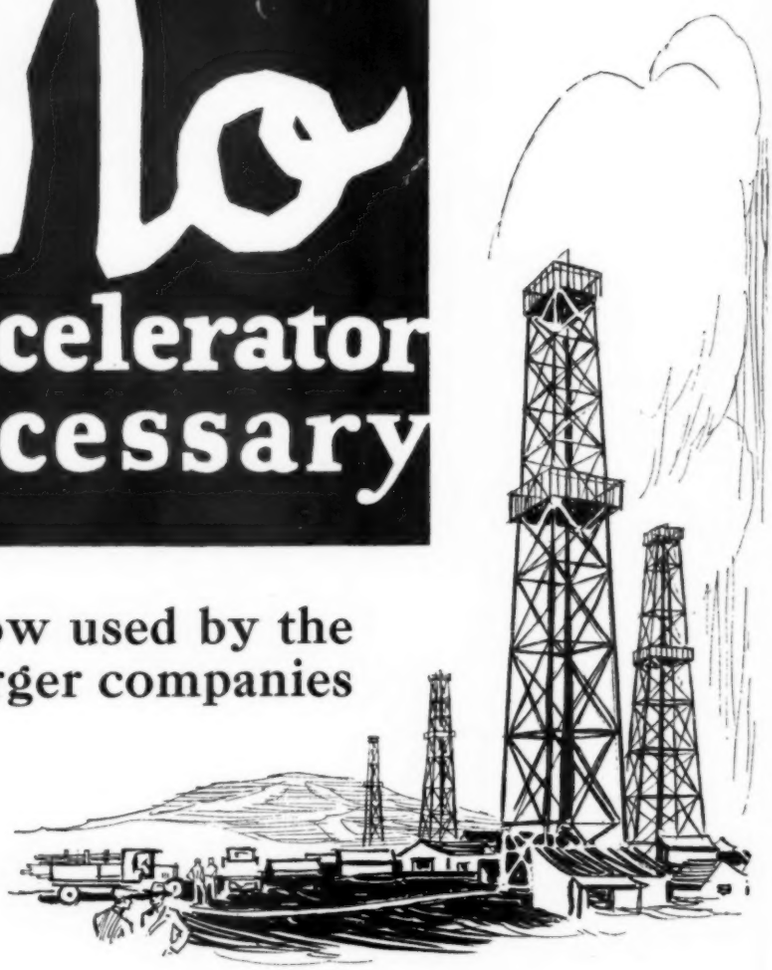
Tulsa, Okla. 409 Atlas Life Bldg.
Houston, Texas. 219 Post-Dispatch Bldg.
Amarillo, Texas 1501 Polk St.

TRINITY
OIL WELL CEMENT

'No Accelerator Necessary

Now . . . ready for immediate shipment. Packed in distinctive, extra-heavy, water-proof green bags. Information gladly supplied those interested.

now used by the larger companies



TRINITY PORTLAND CEMENT CO.

DALLAS :-: FORT WORTH

Say you saw it in The OIL WEEKLY

Capacity of Seminole Pipe Lines Above Production

However conditions are unfavorable to maximum movement of oil and fields are greatly restricted by lack of lines and storage

By GEORGE REID
Staff Representative

In the Seminole area there are 24 operating companies contributing to the daily average production which is still given as above 300,000 barrels. Were it not that storage and pipe line facilities are incapable of handling a much larger output, there is no doubt that the four districts making up the area could and would show a greater production—perhaps as much as 400,000 barrels.

Under present congestion of both steel storage and pipe lines, the output of Seminole proper, in section 9-6, Earlsboro in 5-6, and Searight in 10-6, is of necessity restricted. The potential field of Lima, in section 8-6, has not yet begun to contribute any great quantity of oil, but the consensus of opinion among men in the field is that another Seminole is in the making.

Pipe line companies in the area are making every effort to handle the production of the three major pools, and while practically all of the major operating companies in the fields are affiliated with pipe lines operating companies or own their own lines, there are a few operators not so fortunately situated who are experiencing difficulty in securing adequate outlet for their production.

16 Lines Serve

A recent resume of the pipe line situation indicates that 16 lines are handling oil from the district. The total daily capacity of these lines is estimated at 338,000 barrels maximum, which can be obtained only under ideal conditions. Due to the general congestion, rapidity of development, and time required to make connections under difficult conditions prevalent, this maximum capacity is almost impossible to obtain.

The Empire Gas & Fuel Company has under construction a 10-inch line from the field to Cimarron and to Guthrie, and will build a pump station in section 18-18-7 as the terminus of this line. When this company's tank storage and pipe line building program is completed their present capacity will be virtually doubled. Empire's average pipe line runs during the first half of March is reported at 8,993 barrels. Its present capacity is 12,000 barrels.

The Amerada Petroleum Corporation with a rated pipe line capacity of around 12,000 barrels, was handling only its own oil from its own leases during the early part of March which was run to storage tank in 7-9-6, where recent reports indicated that there was only 18,000 barrels of room left. One of the ten 55,000 barrel tanks that this company has under construction was almost completed at the time, and its completion no doubt effected the necessary relief. Pipe line runs for this company average about 5,800 barrels daily for the period.

Pipe line situation at Seminole, first half of March, 1927.

Company	Daily Average runs 1st half March, 1927	Pipe line rated capacity
Amerada	5,770	12,000
Barnsdall	15,750	16,000
Consolidated	2,700	4,000
Cosden	10,850	15,000
Empire	9,000	12,000
Gulf Oil	26,800	30,000
Independent	7,950	4,000
Magnolia	29,300	33,000
Ozark	10,400	16,000
Oklahoma P&L	45,300	50,000
Prairie	44,500	50,000
Pure	12,900	20,000
Shaeffer	4,200	4,000
Sinclair	40,900	50,000
Texas Co.	14,000	16,000
Tidal-Osage	4,600	6,000
Total-16	284,920	338,000

The Barnsdall Oil Company recently installed additional pumping equipment and the completion of this work effected an enlarged capacity with their first half of March runs averaging 15,750 barrels. Barnsdall's pipe line capacity is now rated at 16,000 barrels daily.

Pipe line runs for the Cosden Company decreased on the average during the first part of March, but they were running oil to storage in 14-9-6 at the rate of almost 11,000 barrels daily. The lines rated capacity is 15,000 barrels. The Consolidated Oil Corporation has been taking oil only from the Barnsdall - Carter lease through its 4000-barrel line at the average rate of 2700 to 2800 barrels per day.

Gulf Pipe Line Company has been taking oil only from the Gypsy Oil Company leases at the rate of 26,000 to 27,000 barrels per day, which runs include the Earlsboro district. Gulf's rated capacity is 30,000 barrels.

Magnolia Line

Magnolia Petroleum Company has completed the laying of a six-inch line from section 2-8-5 to Maud, which will bring about an increased capacity from both Seminole and Earlsboro. Magnolia recently connected to T. B. Slick's leases in 39-9-6, giving this independent operator an outlet for his production. Magnolia's runs, which now include the Earlsboro district, averaged during the period, 29,300 barrels,—with a rated capacity of 33,000 barrels per day.

The Ozark Pipe Line Company runs shows an increase over the last period, latter half of February, at which time the average was about 6,300 barrels. The first half of March the Ozark line transported an average of 10,500 barrels daily. Rated capacity is 16,000 barrels. The Independent Oil Company line is handling crude only from the company's own leases. Pipe line runs given, however, include crude oil loaded to tank cars. Average oil moved for the period was about 8,000 barrels—with a pipe line capacity of 4000 barrels.

Owing to lack of storage room the runs of the Oklahoma Pipe Line Company for the first half of March show some decrease and averaged around 45,300 barrels. Of this amount of crude transported 36,500 barrels was production of the Carter Oil Company which was taken to storage. The Oklahoma Pipe Line Company is handling practically all of Carter's Oil since this company has no line at present. Rated capacity of the Oklahoma Pipe Line Company is 50,000 barrels.

Pure Oil Company recently completed a four-inch line from section 17-9-5 to the tank farm in section 28-9-6. This company is taking oil only from its Strothers lease where production is running around 30,000 barrels. Oil is taken to storage and then loaded to tank cars. Pure's average daily oil moved for the period was 12,876. Its line was a rated capacity of 20,000 barrels. The Shaeffer line is also removing oil from Pure's Strothers lease, and from the Amerada's Killingsworth property. This company handled an average of 4150 barrels of oil through a line rated at 4000 barrels capacity.

Texas Runs Increased

The Texas Company completed a six-inch line from the field to Davenport about January 20, and since that

time its pipe line runs have been increased from around 5000 to 6000 barrels to 10,000 to 15,000 barrels. During the first half of March The Texas Company averaged about 14,000 barrels daily with a rated capacity of 16,000 barrels.

Tidal-Osage Company is running oil only from the five Tidal leases, and at an average during the period of about 4600 barrels. Line capacity is 6000 barrels.

Sinclair pipe line is now connected to the 55,000 barrels tanks on the Indian Territory Illuminating Oil Company's James lease in section 24-9-4, and its Bowlegs lease in 29-9-6 and has been moving oil from these leases at the rate of about 8800 barrels daily, since March 9 or 10. Sinclair's runs show an increase over the last period, and this company has been pipe lining oil from the distirct at the rate of about 41,000 barrels daily through their system rated at 50,000 barrels capacity.

Prairie Oil & Gas Company, during the first half of March was moving oil at the rate of about 45,000 barrels—with a rated capacity of 50,000 barrels. These runs include the production from the Amerada's Anderson lease in 15-9-5, with a new connection recently made on the Phillips' Strothers lease in 27-9-6. Crude oil taken to storage during the period was not included in the pipe line runs and averaged about 3300 barrels daily.

Pipe line maps of the district are not yet available in the field offices of the operating companies, but these are now being prepared.

Shortage of Tanks

The pipe situation at present, and while the producing companies in the field are more or less restricting their output of crude, does not appear unduly congested for there is probably sufficient pipe line capacity to handle the present rate of oil production. The factor which does, however, enter into the case is the lack of steel storage facilities both in the field and in the outlying territory. Were the Seminole areas permitted to produce their maximum yields, no doubt the pipe line capacities as at present ratings would be far surpassed. With the Lima pool, or 8-6 section, coming on with every indication of becoming another Seminole, there is great possibility of crude production again increasing greatly in the next few weeks. The flush production from this section is near enough at hand to point to added difficulties from the standpoint of storage and oil transportation. There are, at present, about 150 drilling operations under way in this south pool with about 70 of them enough to become listed in the completed class before many weeks.

While the situation at present is not comfortable, it is, however, not dangerous. No oil is being wasted, and there is no crude in earthern storage. It is not well, perhaps, to hazard a guess as to what the near future has in store for the pipe line transportation facilities in the Seminole producing district. Certainly, more pipe line facilities could be employed to advantage.

Tax Decision on Profits From Lease Exchanges

Washington. — Important rules for the determination of profits incurred in the exchange of oil mining leases and claims have been laid down by the United States Board of Tax Appeals in decisions on a number of individual cases involving such points.

The profits from the exchange of a lease and interest in mining claims received for services, which lease and interest had no market value at the time acquired, for the stock of a corporation was held by the board to be the amount of the fair market value of the stock received in exchange.

The surrender of an interest in mining claims for a working agreement or an interest in other claims was held to be a completed transaction, and the gain derived from the exchange of the interest for the stock is the difference between the market value thereof when acquired and the market value of the stock received in exchange.

A resolution adopted by a corporation providing for the distribution to its stockholders of certain stocks owned by it in another corporation and held by voting trustees under a voting trust agreement was held a distribution of the stock to the stockholders in the year when the resolution was passed, the stockholders at that time having become entitled to receive voting trust certificates for the stock, although the did not actually receive their certificates until a subsequent year.

The profit from the exchange of stock in one corporation for the stock in another is measured by the difference between the cost of the stock exchanged and the fair market value of the stock received.

Boulder Active

Denver, Colo.—Activity in the Boulder field has not declined since the first of the year but developments have been somewhat disappointing. The Repollo Oil Company, Sinclair subsidiary, has attained a depth of 4200 feet in redrilling below 4000 feet. The old bottom was 4730 feet but sidetracking was necessary. Progress is very slow and the company is considering abandoning the hole for a new location.

Executive Indian Land Leasing Rules Issued

Washington.—Regulations for the enforcement of the act of March 3, 1927, authorizing the leasing for oil and gas mining purposes of unalloted lands within Executive Order Indian reservations, were promulgated by the Secretary of the Interior March 15.

The existing regulations applying to treaty reservations are made applicable to all leases except those executed under Section 5 of the act, which, under conditions outlined therein, gives the Secretary authority to issue exploratory permits and leases to persons who, prior to May 27, 1924, had applied for a permit under the general leasing act.

Applicants desiring to take advantage of the provisions of Section 5, must surrender prior to June 1, next, any permit granted them under the general leasing act, apply for a new permit, and furnish evidence showing that they have met the conditions prescribed in the section.

Deduct Dry Hole Expense Year Abanodned

Washington.—Expenditures made on an oil well which proved worthless and was abandoned are deductible in income tax returns as a loss in the year in which the well was abandoned, under a ruling delivered by the United States Board of Tax Appeals in the case of C. W. Carey, Wichita Falls, Texas.

The board also held in this case that a taxpayer owning a part interest in an oil well may deduct as a business expense his pro rata share of expenses of operation.

Of interest to members of the oil industry using automobiles in their work is the ruling that the expenses of operation and depreciation of a machine used to transport a taxpayer between his residence and the oil field where his business is, and in transporting him over the field to look after his wells, are deductible as business expenses.

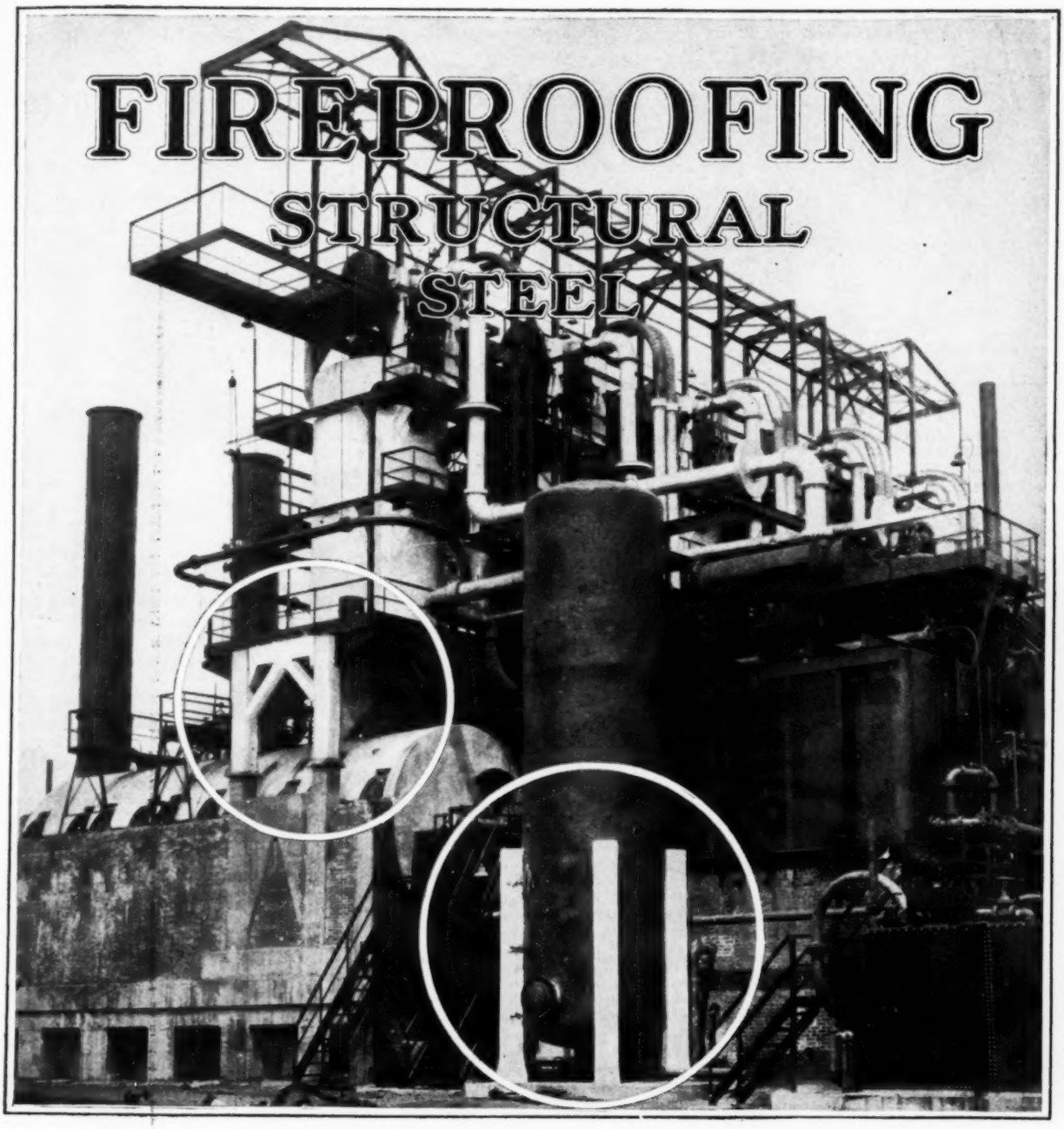
Midwest Plans Test in New Mexico

Denver, Colo.—The Midwest Refining Company will drill a well on the northwest corner of section 15-18-27, Eddy County, New Mexico, as soon as a rotary outfit is installed and rig completed. The location is near the Pecos River and less than seven miles from the Artesia field. A large number of leases have been acquired. One small well has been completed on the acreage. It is producing about five barrels daily from a depth of 1650 feet.

Enlarge Gas Line

Great Falls, Mont.—A new six-inch gas line will be laid from the Kevin-Sunburst field to the town of Sunburst, a distance of 13 miles. The new line will replace a four-inch line, which is too small to furnish both the Sunburst refineries and local consumers with fuel. Actual construction will be started as soon as the pipe arrives from the mills.

FIREPROOFING STRUCTURAL STEEL



Johns-Manville Fireproofing. Note supporting legs of tank in foreground, knee braces and girders of tower supports, and supporting members of partial condensers above towers.

JOHNS-MANVILLE Fireproofing for structural steel has proven its value under the most severe conditions. Overhead apparatus, which would surely have collapsed due to weakening of steel supports, has, by this treatment, been preserved through fires that would otherwise have meant complete destruction. Use it also to insure the continued operation of remote control valve rods which might otherwise be disabled by flame.

JOHNS-MANVILLE CORPORATION, Madison Ave. at 41st St., New York

Branches in all large cities For Canada: Canadian Johns-Manville Co., Ltd., Toronto

Through Asbestos and its allied products
INSULATION
BRAKE LININGS
ROOFINGS
PACKINGS
CEMENTS
FIRE PREVENTION PRODUCTS

JOHNS-MANVILLE

Oil Industry Department

Say you saw it in The OIL WEEKLY

United States Daily Average Production

Figures below are taken from the complete revised estimates of the AMERICAN PETROLEUM INSTITUTE except for the current week, which are advance estimates issued by the A. P. I. and are subject to revision;

Month—	Oklahoma	Kansas	Texas (Outside Gulf Coast)	Gulf Coast	North Louisiana	Ark.	Eastern States	Rocky Mountain	California	United States Ave.	Gross
January	**449,370**	**100,130**	**260,180**	**90,290**	**43,990**	**181,190**	**101,000**	**102,300**	**621,300**	**1,946,980**	**60,356,380**
February	450,037	101,937	245,989	91,550	45,090	169,676	99,000	98,412	605,250	1,909,637	53,469,836
March	454,762	103,300	260,262	92,712	48,787	164,312	97,625	102,325	604,500	1,929,562	59,816,422
April	467,175	101,825	263,612	88,812	50,562	169,824	100,875	106,675	600,000	1,947,387	58,421,610
May	463,750	105,690	277,700	94,550	58,150	175,430	105,700	112,300	602,720	1,995,990	61,875,690
June	456,450	107,637	302,187	89,912	60,412	167,887	106,250	112,925	606,925	2,013,187	60,395,610
July	456,920	110,320	336,600	94,760	57,460	161,870	104,700	108,520	613,940	2,062,470	63,936,570
August	465,137	111,600	381,550	161,237	56,787	157,375	108,350	110,737	609,725	2,162,662	67,042,522
September	465,387	113,037	402,212	175,512	56,575	154,037	110,125	105,825	598,100	2,180,862	65,425,860
October	497,120	114,720	439,190	170,350	58,200	149,810	109,500	99,060	611,600	2,259,850	70,055,350
November	551,225	115,425	475,987	176,425	56,575	144,100	111,125	93,537	641,325	2,365,475	70,964,250
December	561,012	118,950	488,350	181,263	55,137	139,250	110,375	87,650	659,925	2,396,112	71,279,472
January, 1926	591,570	117,490	480,910	176,330	53,030	132,648	108,100	83,910	655,660	2,385,650	73,955,150
February, 1927	683,775	116,200	479,175	154,975	52,850	128,362	107,250	85,237	642,775	2,455,612	69,157,136
March 5	701,400	116,400	478,900	154,150	52,550	125,650	106,000	83,400	645,600	2,464,050	.....
March 12	708,850	116,350	475,250	154,850	52,400	124,050	105,000	85,800	638,560	2,461,050	.....
March 19	706,900	116,800	471,150	154,400	49,750	124,950	104,000	91,700	644,600	2,463,450	.....
Increase	.....	.....	.....	.....	.....	900	.....	5,900	6,100	2,400	.....
Decrease	1,950	350	4,100	450	2,650	.....	1,000	.....	.....	.....	.....

Texas

(Outside Gulf Coast)

PANHANDLE DISTRICT

	Mar. 19	Mar. 12
Hutchinson County	[illegible]	112,750
Gray County	7,950	8,050
Carson County	7,500	7,600
Wheeler County	1,850	1,900
Others	50	50
Totals	125,800	130,350

NORTH TEXAS

Burkburnett	13,500	13,700
Electra	15,050	14,900
Iowa Park-KMA	4,550	4,650
Wilbarger	13,900	13,200
Archer County	31,000	30,000
Clay County (Petrolia)	800	800
Baylor County	100	100
Montague and Cooke Cos.	12,500	12,800
Totals	91,400	90,150

WEST CENTRAL TEXAS

Stephens County	9,800	9,750
Eastland-Desdemona	6,150	6,000
Brown County	34,000	35,000
Coleman County	1,600	1,650
Callanhan County	5,200	5,300
Shackelford County	14,250	14,600
Young County	8,100	8,200
Throckmorton County	3,800	3,950
Jack County	650	650
Palo Pinto County	2,300	2,450
Jones County	3,200	3,400
Mitchell-Scurry Cos.	4,100	4,200
Howard County	2,300	2,400
Reagan County	27,500	27,650
Crane-Upton Counties	45,000	43,500
Crockett County	1,300	1,350
Pecos County	4,200	4,000
Others	800	800
Totals	174,250	174,850

EAST CENTRAL TEXAS

Mexia	11,000	11,000
Currie	650	650
Richland	1,000	1,000
Wortham	4,100	4,350
Corsicana-Powell	19,900	20,000
Nigger Creek	5,950	6,000
Totals	42,600	43,000

SOUTHWEST TEXAS

Luling	18,300	18,000
Lytton Springs	2,400	2,100
Somerset	1,350	1,400
Laredo District	14,300	14,650
Piedras Pintas	100	100
Others	650	650
Totals	37,100	36,900
T'ls Tex. (Outside Gulf Coast)	471,150	475,250

TEXAS GULF COAST

West Columbia	10,250	10,250
Damon Mound	1,050	1,050
Big Creek	4,750	4,450
Boling	1,900	1,800
Blue Ridge	3,100	2,050
Pierce Junction	8,450	10,450
Humble	4,000	4,000
Goose Creek	8,000	7,100
South Liberty	3,600	3,900
Hull	16,400	16,400
Saratoga	1,200	1,200
Batson	1,450	1,650
Sour Lake	5,200	5,200
Spindle Top	60,500	60,550
Orange County	5,050	5,100
Others	6,100	5,900
Totals	141,000	141,050

Oklahoma

North Braman	6,600	7,200
South Braman	4,150	4,400
Blackwell	4,000	4,000
Hubbard	5,300	5,650
Thomas	6,550	1,750
Garber	17,900	18,500
Tonkawa	24,650	24,600
Burbank	47,550	48,150
Osage (outside Burbank)	35,300	35,050
Watchorn	2,750	2,700
Cushing	21,300	21,300
Yale Jennings	11,850	11,900
Davenport	3,600	3,600
Bristow Slick	27,300	27,300
Nort Okmulgee	17,250	17,250
Lyons Deaner	4,400	4,450
Stroud	1,500	1,550
Cromwell	13,700	13,500
Papoose	7,200	7,500
Wewoka	18,300	18,200
Duncan District	6,800	6,800
Earlsboro	32,600	26,900
Graham	9,000	9,000
Fox	1,850	1,900
Healdton	15,000	14,950
Seminole	276,850	282,350
Hewitt	10,450	10,450
Scholem Alechem	14,850	14,900
Others	63,350	63,050
Totals	706,900	708,850

California

Seal Beach	29,700	24,200
Sante Fe Springs	44,000	44,000
Long Beach	93,000	92,000
Huntington Beach	78,000	75,500
Torrance	24,500	25,000
Dominguez	18,000	18,000
Rosecrans	11,000	11,500
Inglewood	38,000	38,000
Midway-Sunset	89,000	89,000
Ventura Avenue	48,900	50,300
Others	170,500	171,000
Totals	644,600	638,500

Kansas

Florence-Covert	1,900	1,900
Peabody-Ebling	3,850	3,800
Eldorado-Towanda	13,250	13,250
Augusta-Fox Bush	4,650	4,650
Rainbow Bend	2,500	2,550
Russell	3,150	3,150
Greenwood County	41,550	41,800
Churchill	15,850	15,850
Others	29,300	29,400
Totals	116,000	116,350

North Louisiana

	Mar. 19	Mar. 12
Homer	5,300	5,300
Haynesville	7,950	7,950
Caddo Light	10,050	9,950
Caddo Heavy	4,600	4,650
DeSoto-Red River	4,000	4,050
Elm Grove	750	750
Bellevue	1,650	1,150
Cotton Valley	6,150	6,150
Urania	9,300	11,950
Totals	49,750	52,400

LOUISIANA GULF COAST

Vinton	5,250	5,400
*Lockport	2,850	2,900
Evangeline	950	1,000
Edgerly	1,150	1,200
Others	3,200	3,300
Totals	13,400	13,800
Totals Gulf Coast	154,400	154,850

*Lockport field report is at variance from A. P. I. figures, showing 6,650 barrels for week's average.

Arkansas

El Dorado	6,250	5,250
Smackover Light	11,800	11,850
Smackover Heavy	99,000	99,050
Stephens	1,300	1,300
Nevada	1,750	1,750
Lisbon	4,650	4,650
Others	200	200
Totals	124,950	124,050

Mountain States

WYOMING

Salt Creek	46,400	41,400
Grass Creek	2,900	2,850
Elk Basin	1,000	750
Big Muddy	2,800	2,850
Lost Soldier	3,550	3,650
Rock River	2,950	3,000
Teapot Dome	950	850
Lance Creek	750	750
Others	2,950	2,950
Totals	64,250	59,050

MONTANA

Cat Creek	2,350	2,400
Sunburst	12,000	11,000
Others	200	200
Totals	14,550	13,600

COLORADO

Moffats (Craig)	2,450	2,550
Fort Collins	3,850	3,650
Florence	700	600
Others	950	1,050
Totals	7,950	7,850

NEW MEXICO

Table Mesa	250	450
Artesia	2,000	2,000
Hogback	800	800
Rattlesnake	1,900	2,050
Totals	4,950	5,300
Totals Mountain States	91,700	85,800

EASTERN STATES

(Including Ill., Ind., Ohio, W. Va., Pa., Ky., and N. Y.)	104,000	105,000

PRODUCTION SUMMARY

East of Rockies	1,727,050	1,736,750
United States	2,463,450	2,461,050

PHONES PRESTON
3839 5540
HARRISBURG PIPE & PIPE BENDING CO. OF TEXAS INC.
VARIOUS STEEL PRODUCTS AND OIL FIELD and REFINERY SUPPLIES

Service Headquarters—Your emergency our service

Here Is An Institution Specializing in·

KINZBACH SELF-LOCKING WHIPSTOCK

the ideal, successful, guaranteed, side-tracking tool—invented by a man with years of experience with one of the country's LEADING oil companies.

Products For Sale by Supply Stores

Kinzbach Whipstock

Forged Steel accurately machined, carefully, threaded.

SET SHOES—CASING SHOES DRIVE SHOES

Stocked in all sizes.

Information Gladly Given

ALSO FLANGES, AND DRILLED TO YOUR SPECIFICATIONS OR ALL STANDARD, DRILLING — LUDLOW GATE VALVES — BOILER TUBES

Harrisburg Pipe & Pipe Bending Co.

OF TEXAS, Inc.

SAWYER AND WINTERS STS. Preston 3839 HOUSTON, TEXAS

CRUDE OIL PRICE QUOTATIONS

Current Postings

EASTERN STATES

	March 23 1927
New York Transit	$3.15
Bradford District	3.15
National Transit	3.05
Southwest	3.05
Eureka	3.00
Buckeye	2.85
Macksburg	2.80
Gaines	2.60
Somerset	1.70
Cabell	1.60
Ragland	.95
Corning	1.50
Keister	1.45

CENTRAL STATES

Illinois	1.60
Indiana	1.48
Lima	1.71
Plymouth	1.33
Princeton	1.60
Waterloo	1.18
Wooster	1.77

WESTERN KENTUCKY

Posted by Stoll Refining Company for crude from Allen, Warren, Franklin, Davies, Barren,

All grades	1.50

MIDCONTINENT

Prairie, Sinclair, Gulf, Texas and Magnolia Cumberland and Monroe Counties.

	March 23 1927
Below 28 (Magnolia only)	1.10
28 to 28.9 gravity	1.12
29 to 29.9 gravity	1.14
30 to 30.9 gravity	1.16
31 to 31.9 gravity	1.18
32 to 32.9 gravity	1.20
33 to 33.9 gravity	1.22
34 to 34.9 gravity	1.24
35 to 35.9 gravity	1.26
36 to 36.9 gravity	1.28
37 to 37.9 gravity	1.30
38 to 38.9 gravity	1.32
39 to 39.9 gravity	1.34
40 to 40.9 gravity	1.36
41 to 41.9 gravity	1.38
42 to 42.9 gravity	1.40
43 to 43.9 gravity	1.42
44 to 44.9 gravity	1.44
45 to 45.9 gravity	1.46
46 to 46.9 gravity	1.48
47 to 47.9 gravity	1.50
48 to 48.9 gravity	1.52
49 to 49.9 gravity	1.54
50 to 50.9 gravity	1.56
51 to 51.9 gravity	1.58
52 and above	1.60

NORTH AND CENTRAL TEXAS

Ranger, North Texas, Mexia, Powell, Richland, Wortham, Lytton Springs, Currie Moran and Nocona Crude

Humble O. & R. Co.* and Texas Co.

	March 23 1927
28 to 28.9 gravity	1.12
29 to 29.9 gravity	1.14
30 to 30.9 gravity	1.16
31 to 31.9 gravity	1.18
32 to 32.0 gravity	1.20
33 to 33.9 gravity	1.22
34 to 34.9 gravity	1.24
35 to 35.9 gravity	1.26
36 to 36.9 gravity	1.28
37 to 37.9 gravity	1.30
38 to 38.9 gravity	1.32
39 to 39.9 gravity	1.34
40 to 40.9 gravity	1.36
41 to 41.9 gravity	1.38
42 to 42.9 gravity	1.40
43 to 43.9 gravity	1.42
44 to 44.9 gravity	1.44
45 to 45.9 gravity	1.46
46 to 46.9 gravity	1.48
47 to 47.9 gravity	1.50
48 to 48.9 gravity	1.52
49 to 49.9 gravity	1.54
50 to 50.9 gravity	1.56
51 to 51.9 gravity	1.58
52 and above	1.60

Corsicana Heavy, $1.00 per barrel, posted by Magnolia.

*Until further notice, Ranger, North Texas, Mexia, Powell, Richland, Wortham, Lytton Springs, Currie, Moran and Nocona crudes purchased at agravity lower than 28 degrees will be paid for at the posted price for 28 degrees gravity.

SOUTH TEXAS

	March 23 1927
Mirando	1.00

SOMERSET

Grayburg and Pioneer

28 to 28.9 gravity	1.12
29 to 29.9 gravity	1.14
30 to 30.9 gravity	1.16
31 to 31.9 gravity	1.18
32 to 32.9 gravity	1.20
33 to 33.9 gravity	1.22
34 to 34.9 gravity	1.24
35 to 35.9 gravity	1.26
36 to 36.9 gravity	1.28
37 to 37.9 gravity	1.30
38 and up	1.32

GULF COAST

Grade "A" all companies	1.20
Gulf Coast Light Oil, Below 25	1.15
25 to 25.9 gravity	1.17
26 to 26.9 gravity	1.19
27 to 27.9 gravity	1.21
28 to 28.9 gravity	1.23
29 to 29.9 gravity	1.25
30 to 30.9 gravity	1.27
31 to 31.9 gravity	1.29
32 to 32.9 gravity	1.31
33 to 33.9 gravity	1.33
34 to 34.9 gravity	1.35
35 to 35.9 gravity	1.37
36 to 36.9 gravity	1.39
37 to 37.9 gravity	1.41
38 to 38.9 gravity	1.43
39 to 39.9 gravity	1.45
40 and above	1.47

*Humble Oil & Refining Company's postings on Gulf Coast Light stop at 35 to 35.9. Its price on all crudes above 35 is $1.37 per barrel.

Magnolia Petroleum Company's postings stop at 31 to 31.9.

MARKHAM

The Texas Company

All grades	1.00

LULING

All grades	1.15

(Continued on page 82)

California Crude Oil Prices at the Well

Following are the current prices offered by Standard Oil Company for crude oil at the well: (Price per barrel of 42 gallons in fields indicated)

Gravity (degrees)	Signal Hill	Huntington Beach	Inglewood	Olinda-Brea Canon	Roescrans Dominguez	Torrance	Richfield	Whittier	La Habra	Montebello	Coyote Hills	Santa Fe Springs	Newhall	Midway-Sunset Elk Hills	McKittrick	Lost Hills	Coalinga	Kern River	Wheeler Ridge
14-14.9	$ .85	$ .85	$ .85	$ .85	$ ..	$ .85	$ .85	$ .85	$ .85	$ .85	$ .85	$ ..	$ .75	$ .75	$ .75	$ .75	$ .75	$ .75	$ .75
15-15.9	.87	.87	.87	.87	..	.87	.87	.85	.85	.85	.85	..	.75	.75	.75	.75	.75	.75	.75
16-16.9	.90	.90	.90	.90	..	.90	.90	.85	.85	.85	.85	..	.75	.75	.75	.75	.75	.75	.75
17-17.9	.94	.94	.94	.94	..	.94	.94	.85	.85	.85	.85	..	.75	.75	.75	.75	.75	.75	.75
18-18.9	.98	.98	.98	.98	..	.98	.98	.86	.86	.86	.86	..	.75	.75	.75	.75	.75	.75	.75
19-19.9	1.04	1.04	1.04	1.04	..	1.04	1.04	.87	.87	.87	.87	..	.75	.75	.75	.75	.75	.75	.75
20-20.9	1.10	1.10	1.10	1.10	..	1.10	1.10	.89	.89	.89	.90	..	..	.82	..	.82	.79	..	.78
21-21.9	1.16	1.16	1.16	1.16	..	1.16	1.16	.91	.91	.91	.98	..	..	.90	..	.90	.86	..	.81
22-22.9	1.22	1.22	1.22	1.22	..	1.22	1.22	.94	.94	.94	1.06	..	..	1.00	..	1.00	.93	..	.85
23-23.9	1.28	1.28	1.28	1.28	..	1.28	1.28	..	..	.97	1.14	..	..	1.11	..	1.11	1.00	..	.89
24-24.9	1.34	1.34	1.34	1.34	1.34	1.34	1.34	..	..	1.01	1.22	1.02	..	1.22	..	1.22	1.07	..	.93
25-25.9	1.40	1.40	1.40	1.40	1.40	1.40	1.40	..	..	1.05	1.30	1.08	..	1.33	..	1.33	1.14	..	.97
26-26.9	1.46	1.46	1.46	1.46	1.46	1.46	1.46	..	..	1.09	1.38	1.16	..	1.44	..	1.44	1.21	..	1.01
27-27.9	1.52	1.52	1.52	1.52	1.52	1.52	1.52	..	..	1.13	1.46	1.24	..	1.55	..	1.55	1.28	..	1.05
28-28.9	1.58	1.58	1.58	1.58	1.58	1.58	1.58	..	..	1.17	1.54	1.32	..	1.66	..	1.66	1.35	..	..
29-29.9	1.64	1.64	..	1.64	1.64	..	1.64	..	..	1.21	1.62	1.40	..	1.77	..	1.77	1.42	..	..
30-30.9	1.70	1.70	..	1.70	1.70	..	1.70	..	..	1.25	1.70	1.48	..	1.88	..	1.88	1.49	..	..
31-31.9	1.76	1.76	..	..	1.76	..	..	..	..	..	..	1.60	..	1.99	..	1.99	1.56	..	
32-32.9	1.84	1.84	..	..	1.84	..	..	..	..	..	..	1.72	..	2.10	..	2.10	1.63	..	..
33-33.9	..	..	..	..	1.92	..	..	..	..	..	..	1.84	..	2.21	..	2.21	1.70	..	..
34-34.9	..	..	..	..	2.00	..	..	..	..	..	..	1.96	..	..	..	2.32	1.77	..	..
35-35.9	..	..	..	..	2.08	..	..	..	..	..	..	2.08	..	..	..	..	1.84	..	..
36-36.9	..	..	..	..	2.16	..	..	..	..	..	..	2.16	..	..	..	..	..	..	..
37-37.9	..	..	..	..	2.24	..	..	..	..	..	..	2.24	..	..	..	..	..	..	..
38-38.9	..	..	..	..	2.34	..	..	..	..	..	..	2.31	..	..	..	..	..	..	..
39-39.9	..	..	..	..	2.44	..	..	..	..	..	..	2.44	..	..	..	..	..	..	..
40-40.9	..	..	..	..	2.54	..	..	..	..	..	..	..	..	..	..	..	..	..	..
41-41-9	..	..	..	..	2.64	..	..	..	..	..	..	..	..	..	..	..	..	..	..
42-42.9	..	..	..	..	2.74	..	..	..	..	..	..	..	..	..	..	..	..	..	..

This SIGN is a *Satisfaction Signal* to motorists!

Authorized Dealer

SINCLAIR OPALINE MOTOR OIL

REG. U. S. PAT. OFF.

Seals Power at every Degree of Wear

WHEN a motorist buys oil at the station which displays this sign, he gets *correct lubrication*— and the Dealer gets more steady business, because the motorist is satisfied!

The method for recommending Opaline Motor Oil (used only by Authorized Opaline Dealers) is an outstanding success! That's because it is the correct method, based on the Sinclair Law of Lubrication. It provides different grades of Opaline to fit the different degrees of wear in automobile engines, as indicated by the mileage on motorists' speedometers. Opaline Dealers ask the motor oil customer his mileage—consult the Sinclair Recommendation Index, and then give him the correct grade. The motorist feels the difference in his car immediately and remembers which Dealer gave him that difference!

May we tell you about this successful method of selling *correct lubrication* with the full line of Opaline Motor Oils?

SINCLAIR REFINING COMPANY, INC.

Also Makers of Sinclair Gasoline and H-C Gasoline

45 NASSAU STREET, NEW YORK

Atlanta Boston Chicago Houston Kansas City

Entire contents copyrighted 1927 by Sinclair Refining Company, Inc.

TEXAS PANHANDLE

Magnolia Petroleum Company

	March 23 1927
Hutchinson, Carson and Gray counties, all grades	1.25

Humble Oil & Refining Company, Gulf Refining Company and Kay County Gas Company

all grades	.95

Gray and Wheeler Counties
Humble Oil & Refining Company

28 to 28.9 gravity	.80
29 to 29.9 gravity	.82
30 to 30.9 gravity	.84
31 to 31.9 gravity	.86
32 to 32.9 gravity	.88
33 to 33.9 gravity	.90
34 to 34.9 gravity	.92
35 to 35.9 gravity	.94
36 to 36.9 gravity	.96
37 to 37.9 gravity	.98
38 to 38.9 gravity	1.00
39 to 39.9 gravity	1.02
40 to 40.9 gravity	1.04
41 to 41.9 gravity	1.06
42 to 42.9 gravity	1.08
43 to 43.9 gravity	1.10
44 and above	1.12

Crane-Upton-Crockett* Counties
Gulf, Humble and Kay County Gas Company

Below 26 gravity	.70
26 to 26.9 gravity	.72
27 to 27.9 gravity	.74
28 to 28.9 gravity	.76
29 to 29.9 gravity	.78
30 to 30.9 gravity	.80
31 to 31.9 gravity	.82
32 to 32.9 gravity	.84
33 to 33.9 gravity	.86
34 to 34.9 gravity	.88
35 to 35.9 gravity	.90
36 and above	.92

*Gulf does not post in Crockett County.

Magnolia Petroleum Company and Kay County Gas Company

Howard County (Chalk Field)	1.43

WYOMING-MONTANA

Wyoming

Byron	**1.33**
Ferris	**1.60**
Elk Basin	**1.33**
Grass Creek	**1.33**
Rock Creek	**1.25**
Lost Soldier	**.95**
Lance Creek	**1.33**
Mule Creek	**1.30**
Notches	.65
Big Muddy	1.25
Osage	1.33
Hamilton Dome	.85
Pilot Butte	1.75
Torchlight-Greybull	1.55
Lander	.80
Simpson Ridge	.80
Rex Lake	**1.10**
South Casper Creek-Poison Spider	1.00

Salt Creek
Midwest Refining Company

29 to 29.9 gravity	1.14
30 to 30.9 gravity	1.16
31 to 31.9 gravity	1.18
32 to 32.9 gravity	1.20
33 to 33.9 gravity	1.22
34 to 34.9 gravity	1.24
35 to 35.9 gravity	1.26
36 to 36.9 gravity	1.28
37 and above	1.30

MONTANA

Sunburst	1.35
Cat Creek	1.33
Lake Basin	2.20

NEW MEXICO

Artesia	1.00
Hogback	1.38

CANADIAN CRUDE

Oil Springs	2.18
Petrolia	2.11

*Bounty on Canadian crude is ¾ cent per gallon, or 26¼ cents per barrel.

LOUISIANA-ARKANSAS

(Standard of Louisiana, Louisiana Oil Refining Company, Gulf Refining Company of Louisiana and The Texas Co.) Homer, Haynesville, Caddo, El Dorado, De Soto and Chrichton.

	March 23 1927
Below 28 gravity	1.10
28 to 28.9 gravity	1.12
29 to 29.9 gravity	1.14
30 to 30.9 gravity	1.16
31 to 31.9 gravity	1.18
32 to 32.9 gravity	1.20
33 to 33.9 gravity	1.22
34 to 34.9 gravity	1.24
35 to 35.9 gravity	1.26
36 to 36.9 gravity	1.28
37 to 37.9 gravity	1.30
38 to 38.9 gravity	1.32
39 to 39.9 gravity	1.34
40 to 40.9 gravity	1.36
41 to 41.9 gravity	1.38
42 to 42.9 gravity	1.40
43 to 43.9 gravity	1.42
44 to 44.9 gravity	1.44
45 to 45.9 gravity	1.46
46 to 46.9 gravity	1.48
47 to 47.9 gravity	1.50
48 to 48.9 gravity	1.52
49 to 49.9 gravity	1.54
50 to 50.9 gravity	1.56
51 to 51.9 gravity	1.58
52 and above	1.60

Atlantic Oil Producing Company posts this same schedule on Homer, Haynesville, and West El Dorado.

Magnolia Petroleum Company has the same posting on Pine Island, Haynesville, Eldorado and Bull Bayou.

STEPHENS

(All Companies)

	March 23 1927
Below 28	1.00
28 to 28.9 gravity	1.02
29 to 29.9 gravity	1.04
30 to 30.9 gravity	1.06
31 to 31.9 gravity	1.08
32 and above	1.10

SMACKOVER

(Louisiana Oil Refining Company, Atlantic Oil Producing Company, and Shreveport-Eldorado Pipe Line Company)

Below 24 gravity	$1.00
24 to 27.9 gravity	1.15
28 to 28.9 gravity	1.17
29 to 29.9 gravity	1.19
30 and above	1.21

Other Companies

Below 24 gravity	1.00
24 and above	1.25
Bellevue	1.25
Jennings	1.15
Vinton	1.30
Edgerly	1.30
Starks Dome	1.30
Urania	1.00
Cotton Valley	1.00
Calion	1.00

RECEIPTS OF CALIFORNIA OIL AT ATLANTIC AND GULF COAST PORTS

(American Petroleum Institute Figures. Barrels of 42 gallons)

	Week Ended March 12	Week Ended March 15
AT ATLANTIC COAST PORTS		
Baltimore	190,000	172,000
Boston	.....	.....
New York	415,000	143,000
Philadelphia	131,000	239,000
Others	236,000	.....
Total	972,000	554,000
Daily average	138,857	79,143
AT GULF COAST PORTS—		
Tampa	15,000	.....
Daily Average	2,143	.....
TOTAL ATLANTIC AND GULF COAST PORTS—		
Total Atlantic and Gulf Coast Ports	987,000	554,000
Daily Average	141,000	79,143
Daily average four weeks ended	78,893	67,322
DISTRIBUTION OF TOTAL CALIFORNIA OIL RECEIPTS IS AS FOLLOWS:		
Crude	158,000	88,000
Gasoline	214,000	396,000
Gas Oil	70,000	70,000
Fuel Oil	545,000	.....
Total	987,000	554,000

IMPORTS OF PETROLEUM AT PRINCIPAL UNITED STATES PORTS

(American Petroleum Institute Figures. Barrels of 42 gallons)

	Week Ended March 12	Week Ended March 15
AT ATLANTIC COAST PORTS—		
Baltimore	.....	140,000
Boston	200,000	69,000
New York	434,000	367,000
Philadelphia	79,000	71,000
Others	213,000	298,000
Total	926,000	945,000
Daily Average	132,286	135,000
AT GULF COAST PORTS—		
Galveston District	18,000	69,000
New Orleans and Baton Rouge	418,000	326,000
Port Arthur and Sabine District	.....	60,000
Tampa	.....	30,000
Total	436,000	485,000
Daily Average	62,286	69,286
AT ALL UNITED STATES PORTS—		
Total	1,362,000	1,430,000
Daily Average	194,572	204,286
Daily Average Four Weeks Ended	185,643	201,750

COMPLETIONS FOR PAST WEEK IN U.S. FIELDS

Summarized Review of Field Results

State—	Completions This Week	Completions Last Week	Producers This Week	Producers Last Week	Gas Wells This Week	Gas Wells Last Week	Failures This Week	Failures Last Week	Initial Production This Week	Initial Production Last Week
Arkansas	13	11	7	5	1	1	5	5	214	347
California	17	16	16	16	1	..	..	..	9,392	9,605
Colorado	2	3	2	..	..	1	..	2	60	.....
Indiana	2	3	1	1	..	1	1	1	20	50
Illinois	2	3	2	3	..	..	..	..	16	47
Kansas	39	17	25	7	..	..	14	10	4,640	590
Kentucky	18	25	15	17	..	1	3	7	316	419
Louisiana	19	13	6	4	5	1	8	8	1,526	218
Michigan	4	4	3	4	..	..	1	..	50	70
Mississippi	..	..	..	..	..	..	..	..	.....	.....
Montana	3	1	3	1	..	..	..	..	135	450
New Mexico	1	..	1	..	..	..	..	..	25	.....
New York	15	..	15	..	..	..	..	..	59	.....
Ohio	16	22	7	15	2	4	7	3	100	421
Oklahoma	90	104	56	62	14	6	20	36	39,576	38,973
Pennsylvania	72	4	63	1	6	3	3	..	295	5
Tennessee	2	..	2	..	..	..	..	..	35	.....
Texas	232	145	153	91	5	6	74	48	18,635	27,908
Utah	1	..	..	..	..	..	1	..	.....	.....
West Virginia	27	32	10	10	14	14	3	4	68	117
Wyoming	6	6	5	6	..	..	1	..	7,925	2,000
Totals	581	409	392	243	48	42	141	124	83,087	81,220
Increase this week	72	..	49	..	6	..	18	..	1,858	.....
Decrease this week	..	..	..	..	..	..	..	..	.....	.....

NOTE—Following is the explanation of abbreviations, signs, etc., used in completion and wildcat reports: *—dry hole, abandoned well; ‡—salt water; †—junked and abandoned; ¶—million cubic feet of gas; abn—abandoned; bbls—barrels; b. s.—basic sediment; cas—casing; co—cleaning out; dk—derrick; dr—drilling; fsh—fishing; ft—feet; in—inches; lcn—location; m—milling; n, s, e, w—north, south, east, west; r—reaming; sd—shut down; sdtr—sidetracking; sp—spudding; sr—straight reaming; std—standardizing; sw—salt water; td—total depth; ur—under reaming; wo—workover; wosr—waiting on standard rig.

California

Company, Well and Location	Initial Production Bbls.	Depth
Seal Beach—		
Associated, Bryant 3	675	4387
Marland, Bixby 7	1500	4464
Bixby 9	1650	4400
Huntington Beach Townsite—		
Ring Pet. Co., Huntington 7	100	3850
Chas. A. Son, Huntington 17	300	4425
Long Beach—		
Marine Oil Corp., No. 6	290	4790
National Gaso. Corp., Clark 1	¶1	2415
San Martinez Oil Co., Booth 7	365	5200
Baldwin Hills—Inglewood—		
Shell Co., Rindge 41, wo	120	2673
Brea-Richfield—		
Chiksan Oil Co., A. & H. 1	350	4687
Continental Oil Co., Pyne 2	1100	4400
Shell Co., Orange 12	667	4854
Standard Oil Co., Kraemer 2-23	220	4620
KERN COUNTY		
Wheeler Ridge—		
Standard, No. 28	100	2705
Hovey Hills—		
Hugh B. Evans, No. 14	250	2103

Mountain States

WYOMING

Salt Creek—		
Wyoming Asso. Oil Co., 22L, nw 26-40-79	3600	2465
21, se 23-40-79	100	1105
Wyoming Oil Fields 3L, ne 26-40-79	3900	2400
Midwest 6L, nw 2-39-79	200	2505
Wyo. Asso. Co. 19L, se 23-40-79	125	2504
Fremont County—		
Union Oil Co. 1, 17-22-19	*	1225

COLORADO

Florence—		
J. J. Selvin, 1D, se 35-18-70	30	1090
Stock Bros., 1, 35-18-70	30	1082

NEW MEXICO

San Juan County—		
Edwards, Tr. Synd., 1, 22-29-11	25	744

UTAH

Crescent—		
Armstrong Co., 1, 17-22-19	*	1225

MONTANA

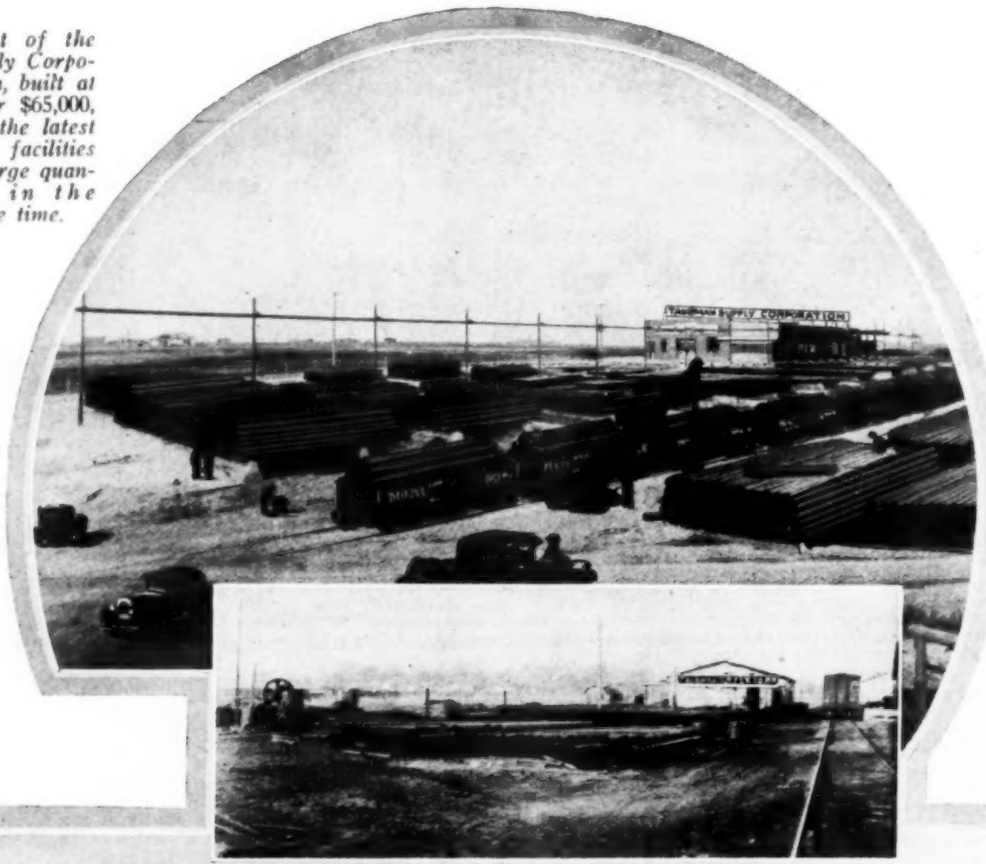
Company, Well and Location	Initial Production Bbls.	Depth
Kevin-Sunburst—		
Ohio, 5, se 32-35-1	35	1470
Kalispell Oil Co., 3, se 22-35-1	50	1555
Ski-U-Mah Oil Co., 2, nw 33-35-1	50	1475

Oklahoma

Carter County—		
Magnolia, Cox 3, nw sw nw 15-2-2	25	1197
Skelly, Moore 2, nw 17-2-2	145	2666
Magnolia, Newstadt 7, ne nw se 34-1-3	134	3136
Creek County—		
Riverside, Riverbed 3, nw ne sw sw 5-18-7	60	2515
Transcontinental, Scruggs 1, nw sw nw sw 16-17-8	320	3500
O. M. Irelan, Freeman 9, se 8-17-11	¶6	2053
Redister, Murrell 4, sw ne nw 17-19-9	¶6	2239
Radcliffe, Thompson 1, nw sw 35-18-10	25	2105
Sunray et al, Townlot 1, lt 47, blk 16, se se ne ne 6-18-12	1520	2234
Savoy et al, Townlot 1, lt 38, blk 17, ne ne se ne 6-18-12	2000	2232
Peters Barnes 2, ne se se 4-17-11	¶22	2344
J. R. Cole et al, Sparks 2, c s 1 nw nw 31-15-9	¶2	997
Devonian, Milliken 1, se sw sw 2-14-10	*	3222
Savoy, Townlot 1, lt 1, blk 10, ne sw ne ne 6-18-12	*	2229
Sunray et al, Townlot 1, lt 31, blk 1, c w l ne ne ne 6-18-12	*	2307
Grady County—		
Nicholas Drlg. Co., No. 1 Serrate, nw 25-5-8	¶15	2460
Okla. Natural Gas, Smith 3, se sw sw 26-5-8	¶20	2390
Magonlia, Rockhold 2, c nw nw 11-4-6	¶5	2145
Clark et al, Kilgore 4, sw nw nw 27-3-5	500	1796
Clark et al, Kilgore 5, ne nw nw 27-3-5	175	1772
Critchlow et al, Adair 4 nw sw nw 27-3-5	1500	1791
Magnolia, Ervin Polson 2, se sw sw 27-3-5	¶5½	2615
Empire, Thomas 1, sw ne se 19-5-7	*	2496
Garfield County—		
Sinclair, Noth Walker 71, c s½ ne 13-22-4	330	3649
Champlin, Boggs 36, c n½ ne sw 24-22-4	35	1132
Garvin County—		
Magnolia, Wyatt 7, nw sw nw 13-1-3	25	1583
Hughes County—		
Mid-Kansas, Harjo 1, ne 34-9-9	165	3396
Kay County—		
Comar, Priboth 13, ne nw nw 21-29-1	300	3422
Marland, Dickerson 4, ne nw se 17-29-13	60	2350
Marland, Dickerson 5, se nw se 17-29-1	75	2352
Comar, Horne 2, ne nw 8-28-1	70	2852
Otstot et al Mit Moore 1, se sw 8-27-1	45	3465
National Union et al, Glasgow 1, swc nw 6-36-1	700	3646
Marland, North 1, lease 2, swc 6-26-1	200	3664
Marland, Thomas 7, sw nw sw 15-25-2	*	2684
Lincoln County—		
Magnolia, Bennedict 1, sec nw 7-14-4	105	3344
Okfuskee County—		
Champlin, Jefferson 1, swc 14-11-11	850	3480
Umburn, Detzler 1-A, nw sw sw 36-11-11	¶8	2497
Sinclair, Micco 1, sec new sw 36-11-9	¶9	2982
Independent, Bruner 1, sw se sw 16-10-9	¶70	3312

QUALITY, QUA

The new plant of the Taubman Supply Corporation at Tulsa, built at a cost of over $65,000, equipped with the latest machinery and facilities for handling large quantities of pipe in the shortest possible time.



Taubman pipe yard and plant, located at El Dorado, Kansas, adequately prepared to serve this territory.

New plant showing complete stocks of pipe located at Phillips, in the Texas Panhandle. Strategically located, each plant of the Taubman Supply Corporation serves the principal oil fields, with Taubman Quality, Quantity and Service.

TAUBMAN SUPPLY

Say you saw it in The OIL WEEKLY

ANTITY SERVICE

A Complete service to the-- Petroleum Industry

THE Taubman Supply Corporation has hundreds of thousands of dollars invested in the most modern and complete plants, located in every important field carrying enormous stocks of new and dependable used tubular products.

The photographs on the accompanying page are self-explanatory of Taubman Supply Corporation's Quality Quantity and Service

As a Taubman customer your rights are always protected. Our used pipe is sold under the Taubman guarantee. You always get what Taubman represents. We use no assumed names for our products, as it is always sold under its original name and looks.

Our new tubular products which we handle are first class, bearing the mill stencil and guarantee.

WE DO NOT HANDLE ANY MILL SECONDS and in line with the Taubman policy we feel it our duty to warn you that thousands of tons of mill seconds and rejects are finding their way to the field, and a great portion sold as first class new pipe. For your safety, always demand that your new pipe bear stencil of make, test and weight, otherwise you are getting seconds. Because pipe manufacturers who are selling mill seconds to the dealers and brokers do not stencil their rejects.

General Offices: Midco Building
TULSA, OKLAHOMA

District Sales Offices: 1424 Niels Esperson Bldg., Houston. 403 Magnolia Bldg., Dallas, Texas

Branches

EL DORADO, KANSAS; SEMINOLE, OKLAHOMA; PANHANDLE and PHILLIPS, TEXAS

LY CORPORATION

Say you saw it in The OIL WEEKLY

Company, Well and Location	Initial Production Bbls.	Depth
McCullough, Brown 1, swe ne 6-10-9	*	3442
Cromwell, Rogers 2, swc se 8-12-7	*	....
Okmulgee County—		
Eagle Pitcher, Barnett 4, swc nw nw ne 3-11-12	¶¾	906
J. A. Swindler et al, Lewis 11, nwc se ne 25-13-11	45	2483
D. B. Meers et al, Sells, 4, nec sw se 25-14-14	15	1281
Keaton et al, Love 1, sec ne 35-13-11	*	3279
Sheridan, Harjo 1, sec sw nw 33-14-12	*	2250
Osage County—		
Phillips, 9, sw nw ne 12-27-5	125	3024
Gypsy, 3, ne se se 28-27-6	1500	2963
Skelly, 10, swc nw 28-26-6	180	2955
The Texas Co., 5, ne nw ne 28-26-6	120	2974
Texas, 7, ne sw ne 28-26-6	240	2983
Pueblo, 2, nec sw sw se 14-21-8	15	2279
Pioneer, 8, nwc se 5-20-11	30	1757
Gypsy, 3, nw sw ne 7-27-6	*	3143
I. T. I. O., 355, nwc ne se 20-23-8	*	850
Pawnee County—		
Marland et al, Miner 2, nwc ne sw 33-20-5	160	3725
Payne County—		
Garrs, Garr 3, nw sw sw 9-19-5	40	2983
Olean, Moses 1, nec nw 21-19-5	40	3830
Skelly, Ballard 3, swc se sw 32-18-4	200	4181
Pittsburg County—		
Quinton Relief, Bascomb 1, nwc se 10-7-18	¶33	1855
Pottawatomie County—		
Gypsy, School land 3, se nw ne 16-9-5	9497	4246
Seminole County—		
Kingwood et al, Harjo 2, sw se se 22-9-6	1228	4006
Kingwood et al, Harjo 4, ne se se 22-9-6	545	4067
Carter, F. Carter 4, sw ne se 23-9-6	185	3950
Atlantic, Cudjo 2, nec sw 35-9-6	3500	4110
Carter, Cudjo 3, se nw sw 35-9-6	1030	4104
Phillips, Strothers 1, se sw se 27-9-6	1087	4006
Pure, Strothers 16, se nw sw 26-9-6	3833	4060
Tidal, Tayoche 2, nw ne nw 25-9-6	895	4220
Barnsdall, Carter 7, nw sw nw 24-9-6	2400	4225
I. T. I. O., Goodin 3, sw ne ne 23-9-6	200	4203
I. T. I. O., Goodin 2, se ne ne 23-9-6	200	4233
Independent, Bruner 4, sec ne 10-9-5	67	3595
Carter, Davis 2, nw ne ne 4-9-6	2160	4362
I. T. I. O., Payne 1, sw nw ne 2-8-6	*	4371
McGraw et al, Anderson 1, nwc sw 15-9-5	*	4343
Carter, Killing 4, nwc se 14-9-6	*	4374
Tom Green et al, Unallotted 1, swc se se 25-18-13	15	1646
Glidden, Fife 3, swc nw sw se 15-19-11	50	2136
Glidden, Fife 2, nwc sw se 15-19-11	350	2142
Minshall et al, Fife 6, sec ne se sw 15-19-11	250	2140
Holmes et al, Unallotted 1, swc se sw 32-19-11	*	2550
John Hayden, Futrell 2, c s l nw sw 6-19-10	*	2150
Waggoner County—		
W. C. Newman, Atkins 1, sec ne 13-17-16	¶5	1167
J F. Hoff, 1, sec sw 35-19-15	*	1486
R. F. Ray et al, Ballard 1, Nec sw se sw 36-16-17	*	1060
J. O. Tilley, Harrison 2, c n l se sw 15-15-16	*	2103

Kansas

Company, Well and Location	Initial Production Bbls.	Depth
Butler County—		
Rogers et al, Bitler 12, nw ne se 20-26-8	140	2705
Phillips, Oldsbury 1, se ne ne 17-27-6	40	3128
Magnolia, Stern 1, ne se ne 33-27-6	180	3080
Phillips, Parker 1, ne sw nw 13-27-7	150	2678
Seward 5, sw nw nw 13-27-7	150	2677
Sinclair, Harris 2, sec sw 14-27-7	150	2697
B. G. & M., Ramp 1, ne nw nw 26-28-7	20	2472
Chauauqua County—		
Griffith et al, Oliver 2, c sw nw 1-32-10	25	1684
Cowley County—		
Tidal et al, Wallace 3, sw se sw 15-32-4	50	2320
Foster et al, Townlot 1, nw ne se nw 22-32-4	45	2268
Harland, Buckles 1, nw ne 6-35-3	*	3580
Elk County—		
Empire, Porter 5, c s l nw 13-29-8	25	2980
Union Gas, Leffingwell 8, se ne sw 14-31-10	540	1646
Ohio Fuel Oil, Crist 1, se sw 11-21-9	*	2368
Landon et al, Johns 1, se 28-31-10	*	2312
Greenwood County—		
Empire, Inthurm 2, sw 12-22-11	10	1906
Roth et al, Tucker 4, ne nw se 22-23-10	20	2261
Mid-Continental et al, Ellis 2, se sw nw 26-23-11	10	1915
Sinclair, Robertson 1, nw sw sw 17-24-11	50	1822
Mid-Kansas, Jackson 5, ne nw nw 25-25-8	210	2385
Syndicate, Bradfield 7, ne se 2-22-10	*	2145
Empire, Gravette 4, nw se ne 14-22-11	*	1953
Fisher et al, Broddock 1, sw nw 24-22-11	*	2175
Pure, Oliver 7, sw se se 8-23-11	*	....
Darby et al, McGilvray 3, nw ne ne 17-23-11	*	....
Transcontinental, Schwab 1, nw 2-23-12	*	....
Simmons et al, Wengler 1, ne sw 12-23-12	*	1855
Snyder et al, Brown 1, se ne ne 15-25-12	*	....
Rice County—		
Mid-Land, Johnson 1, se sw sw 26-20-6	20	3430
Independent, Walstein 3, c s l se nw nw 2-21-6	427	3453
Pryor, Deed 1, ne sw nw 1-19-7	*	4456
Summer County—		
Roxana, Mason 2, ne se nw 25-31-2	428	1915
Roxana, Mason 3, se ne nw 25-31-2	500	1915
Roxana, Rutter 2, nw sw ne 25-31-2	1000	1920
Selby, Iland 1, nw sw ne 36-31-2	210	1814
Marland, Swian 1, nw ne ne 25-33-2	225	3570
Woodson County—		
Little Seven, Collins c e½ ne 30-23-14	15	1684
Chase County—		
Empire, Camon 1, sw ne nw 15-21-9	*	3130
Reno County—		
T. B. Slick, Dutton 1, se nw sw 25-26-9	*	4453

Eastern States

PENNSYLVANIA

Company, Well and Location	Initial Production Bbls.	Depth
Bradford Field—		
South Penn Oil Co., Weston Jr. 99	12	....
Bingham 151, tract 37	7	....
Bingham 533, tract 86	2	....
Bingham 533, tract 87	7	....
Bingham 439, tract 100	7	....
Bingham 150, tract 78	3	....
Bingham 439, tract 99	3	....
Fee 1	7	....
Midland 39	3	....
Hodge 2	3	....
Enterprise 71	3	....
Davis 27	2	....
Dent 108	3	....
Whipple 131	2	....
Rounds & Lawrence 61	3	....
E. D. Kepner Oil Co., Kepner 1	12	....
Franchot Trustee, Loop State 1	17	....
W. C. Kennedy Co., Kennedy 58	7	....
Forest Oil Co., Taylor 1	3	....
Taylor 2	3	....
Taylor 3	3	....
Fisher 1	4	....
Fisher 2	2	....
Fisher 3	3	....
Piper & Lloyd, Ekas 26	2	....
Ekas 27	2	....
J. W. Kaufman, Rounds 1	12	....
Rounds 2	17	....
R. M. George & Co., Bingham 370, tract 31	10	....
M. C. Reidy, Reidy 16	5	....
Forest O. Corp., Rutherford 3	4	....
Asso. Prod. O. Co., Bingham 582, tract 378	8	....
S. H. Elder & Co., Elder 19	4	....
P. A. Oaks & Son, Bingham 580, tract 25	7	....
Hope Oil Co., Sill 12	3	....
Healy & Daly, Bingham 500 ,tr 35	4	....
V. G. Smith, Smith 1	7	....
Penn. Oil P. & R. Co., Fee 1	2	....
Fee 2	2	....
Hamlin & Bovaird, Rew 35	2	....
Melvin & Co., Lovell 1	3	....
D. J. Moody, Moody 7	3	....
Schwab & Rapp, Borden 1	3	....
Venango County—		
Alum Rock Gas Co., Shawkey 3	8	....
Midland Oil Corp., McNellie 20	4	....
Geo. Nelson, McClintock 1	3	....
Richland O. & G. Co., Criswell 1	2	....
Criswell 2	2	....
Thompson & Rice, Osborne 5	3	....
J. L. Eakin, Eakin 20	2	....
Ritze & Braymer, Kuhns 2	3	....
Crimm & Jenkins, Foster Farm Co. 23	2	....
Foster Farm Co. 24	2	....
Brundred Oil Co., Doyle 13	2	....
Graham & Scott, Wright 37	2	....
Butler County—		
Amer. Nt. Gas Co., Glendenning 1	20	....
Hutchison & Co., McKinney 7	3	....
Holben, Ritzert Bros., Holben 1	¶1¼	....
J. C. Trees, Purvis 2	¶1½	....
J. S. Walker, Sheakley 1	*	....
Hinchberger & Co., Paul 1	*	....
Green County—		
Manuf. L. & H. Co., A. & V Lyons 1	¶2	....
D. K. Phillips 1	¶1½	....
Ervin White 3	*	....
Clarion County—		
J. Gillingham, Gillingham 1	¶1¼	....
George Strubler, Strubler Heirs 7	¶1	....
Neeley-Clover Oil Co., Stewart 6	5	....
C. L. Wedekind, Rowan 4	2	....
Furman & Co., Kiser 1	*	....
Center-Middle Field—		
McCool Bros., Smith 1	2	....
Forest County—		
Mensch & Shields, Mensch 1	2	....
Mercer County—		
W. D. Doyle, Doyle 13	5	....

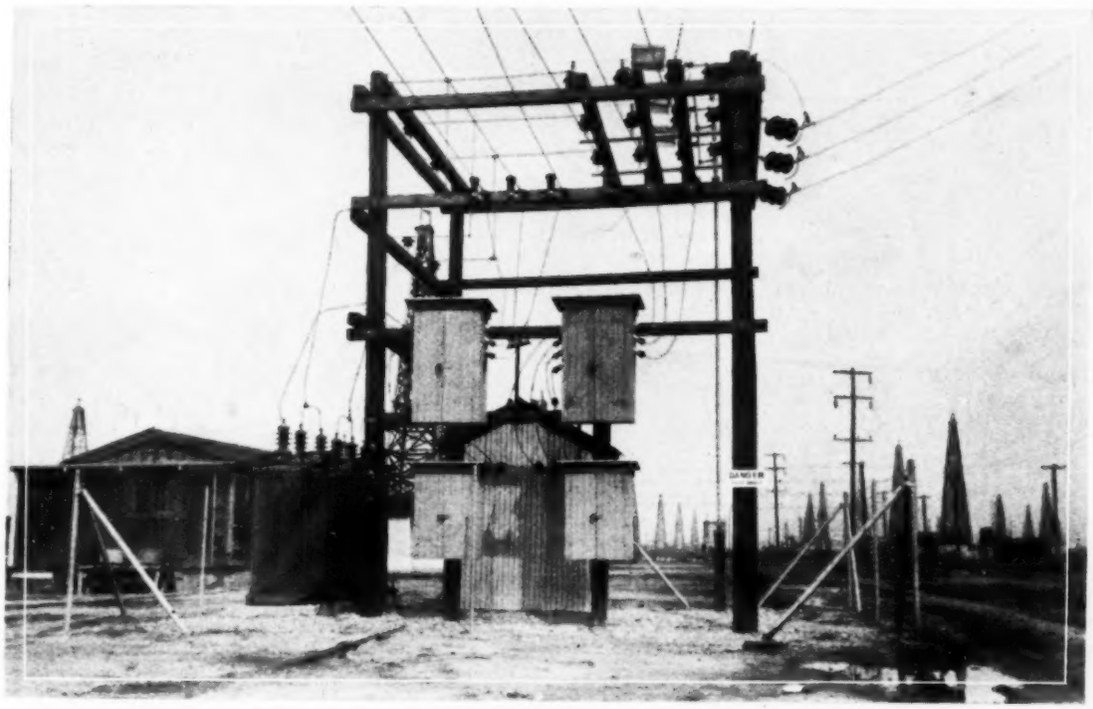
NEW YORK

Company, Well and Location	Initial Production Bbls.	Depth
Allegany County—		
Franchot Trustee, Fries 1	8	....
Fee 1	3	....
Brandel Heirs 2	4	....
S. J. Cleveland & Co., Cleveland 1	5	....
Dermitt & Gilligan, Dermitt & Co. 1	7	....
Empire G. & F. Co., Empire 4	3	....
Empire 5	3	....
First Trust Co., S. Penn 2	4	....
McDivitt & Co., McDivitt 4	5	....
Wm. Bartoo, Bartoo 1	3	....
C. M. Robinson, Robinson 1	3	....
C. H. Lavans & Co., Lavans 3	3	....
W. J. Fitzgerald, F. D. & B 1	3	....
Kinley Prod. Co., McKinley 1	2	....
Martin Bros. & Co., Martin 1	3	....

WEST VIRGINIA

Company, Well and Location	Initial Production Bbls.	Depth
Roane County—		
N. B. Daniel, Saylers 1	¶2	....
United F. & G. Co., Vineyard 1	¶2¼	....
Cromwell 1	¶2	....
Elkins O. & G. Co., W. M. Smith 1	¶1½	....
Dan Saylers 1	¶1¼	....
King O. & G. Co., A. White 1	*	....
Wetzel County—		
Silver Hill O. & G. Co., Burley 3	*	....
Richwood Oil Co., J. Mills 14	5	....
Hope Const. & Refg. Co., Riter 7	5	....
Carnegie Natural Gas Co., Rufus Long 3	¶2	....
Gilmer County—		
Ohio F. & O. Co., Smith 4	¶2	....
Hope Const. & Refg. Co., Alleman 1	¶2	....
Hope N. G. Co., Bennett 1	*	....
Clay County—		
Virginian G. & O. Co., Brown-Swan 19	5	....
South Penn Oil Co., Parker 6	5	....
Pleasants County—		
Dinsmore & Co., Templeton 3	5	....
Wiser Oil Co., A. Bramlett 1	3	....

Electrifying OIL PRODUCTION



Stroube & Stroube, Wheelock & Collins, Joint Sub-Station,
Hill Lease, Powell Oil Field.

DESIRABILITY PLUS AVAILABILITY

The electrifying of oil production is never a matter of desirability, but of availability—desirability was taken for granted, as soon as oil men began to see what electric power was doing in other industries. Now electric power—dependable electric power—is being utilized to cut costs on an ever increasing number of drilling and pumping jobs, and to increase the average production per well, in some of the leading Texas oil fields, because of the availability of Texas Power and Light Company and Texas Electric Service Company electric service. Write us for comparative figures.

Texas Power & Light Co.

Texas Electric Service Co.

General Offices, Interurban Bldg., Dallas, Texas

Company, Well and Location	Initial Production Bbls.	Depth
Tyler County—		
Samuel & Gale, Gale Hrs. 14	5	....
American O. Dev. Co., M. Cornell 4	¶4	....
Braxton County—		
Philadelphia G. Co., McCombers 1	¶2	....
H. C. Zogg & Co., H. Belknap 1	¶2½	....
Monongalia County—		
Maxon Oil Co., Whistler 3	20	....
Ritchie County—		
Penn. Oil Co., H. S. & R. Wilson 8	10	....
Kanawha County—		
Virginian G. & O. Co., Brown 17	*	5 ....
Marion County—		
Hope Const. Co., Evans Hrs. 1	¶2	....
Lincoln County—		
Columbia G. & E. Co., Sweetland 432	¶1	....
Harrison County—		
Hope Nat. G. Co., Sullivan 1	¶2	....
KENTUCKY		
Ohio County—		
C. Miller, Ambrose Hrs. 4	250	631
Daviess County—		
Leeper Oil Co., Roby 3	8	....
Barren County—		
C. C. Smith & Co., Smith 1	7	....
Allen County—		
Harley & Coatsworth, L. Oliver 6	3	....
Warren County—		
Onsel Bros. & Co., Davenport 2, tr 14	10	1060
Wood Oil Co., Davenport 28	5	453
Lucky Strike Oil Co., Amos 1	10	310
S. H. Russell & Co., Scott 13	4	1100
Estill County—		
Superior Oil Co., Marcum 1	2	....
Marcum 3	1	....
Marcum 4	2	....
G. Campbell 9	3	....
J. D. Alexander 10	*	....
J. D. Alexander 11	1	....
S. Horn 28	*	....
Brenner & Adams, Sawyer 4	*	....
Wood Oil Co., B. Brinneger 10	2	....
W. Neal 15	8	....
TENNESSEE		
Pickett County—		
Owens, Turner & Co., M. Harrison 2	25	....
Clark Oil Co., Arney 2	10	....
SOUTHEASTERN OHIO		
Washington County—		
Morris Oil Co., Morris 2	*	....
Charles L. Erb & Co., Unknown 1	*	....
W. C. Patterson & Co., S. Bell 2	*	....
CENTRAL OHIO		
Holmes County—		
East Ohio Gas Co., Nowells 1	100	....
B. A. J. Middagh 2	30	....
A. E. Patterson 2	10	....
Cuyahoga County—		
Hulse & Kuntz, F. Clausen 1	¶¼	....
J. & A. Ballasch 1	*	....
Simpson & Co., F. K. Biddulph 1	*	....
Athens County—		
Clouster O. & G. Co., C. Thomas 1	10	....
Perry County—		
Hope Const. & Ref. Co., Barnes 1	2	....
Summitt County—		
East Ohio Gas Co., Kirby 1	¶1¼	....
Knox County—		
East Ohio Gas Co., Temple 1	*	....
Coshocton County—		
Logan Gas Co., J. A. Markley 1	*	....
NORTHWESTERN OHIO		
Ottawa County—		
Catawba O. & G. Co., Catawba Orchards 2	20	1987
Wood County—		
Oko O. & G. Co., H. A. Lendenbyer 9	17	1256
INDIANA		
Pike County—		
Wiser Oil Co., E. G. Wilson 2	20	1372
Knox County—		
North Side O. & G. Co., R. Ray 1	*	....
ILLINIOS		
Wabash County—		
W. M. Bell & Co., Yelton 4	8	1565
Crawford County—		
Craig, Lowrie & Co., R. Weger 12	8	1040
MICHIGAN		
Saginaw County—		
Fordney Pet. Co., Nelson-Nowak 1	20	1835
Saginaw Prosp. Co., Pappas 1	20	1831
Bacon Pet. Co., Hugel 1	10	1862
Cedar 1	*	1832

Arkansas

Company, Well and Location	Initial Production Bbls.	Depth
Ouachita County—		
Simms, Murphy 7, 28-15-15	40	2619
Magnolia, Gosden 1, 15-15-19	12	2201
Union County—		
Gladys Belle, Cook 11, 16-16-15	25	2615
Imperial O. & G., Murphy 6, 9-16-15	60	2747
O. G. Murphy, T. C. Murphy A-3, 9-16-15	10	2729
Ohio, Murphy 7, 9-16-15	52	2720
C. L. Saxon, Fee 3, 4-16-16	5	2579
Texas Co., Saxon 5, 4-16-16	20	2609

Louisiana

Company, Well and Location	Initial Production Bbls.	Depth
Bossier Parish—		
Texas Co., Coplis 5, 24-16-12	¶2½	1885
Bahan and Bahan (Amerada 27-23-12) Mays 1	¶35	3086
Caddo Parish—		
Camp Oil Co., U. S. Gov. 1, 8-20-16	5	1880
Magnolia, Bell 1, 6-17-16	¶13	2620
Doan-Thigpen 16, 6-20-15	9	1604
J. H. Herndon 13, 22-21-15	2	1606
Tholl Oil Co., Edson 1, 32-21-15	10	1700
Grant Parish—		
Paulette et al, Holmes 1, 17-9-1e	300	1603
Ouachita Parish—		
Jordan Drlg. Co., Montgomery 1, 13-18-4e	¶3½	2338
Ladell et al, Fee 37, 10-19-5e	¶5	2206
SOUTH LOUISIANA		
Lockport—		
Vacuum-Gulf, Miller 13	1200	4400

Texas

GULF COAST

Company, Well and Location	Initial Production Bbls.	Depth
Saratoga—		
Skinner Oil Co., Brooker 2	8	800
Batson—		
East Batson Oil Co., Crawford 1	10	1325
Sour Lake—		
Gulf, C. L. Jackson 5	30	4000
Cannon & Davies, Crosbie 1	*	1100
Hull Oil Co., Harrison 2, wo	*	3150
W. B. Flynn, Riviere 2	*	850
Big Creek—		
Gulf, T. W. Davis 39	200	2950
Columbia—		
Gulf, E. J. Eyres 9, wo	10	2900
Blue Ridge—		
Navarro Oil Co., Robinson "A" 2	500	3100
Orange—		
Brownie-Babbette, McLean 1, wo	125	3410
Texhoma Oil Co., Chesson 13, wo	*	5625

ARCHER COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
American Ref. et al, Tureville 12	200	1513
Barnsdall, Wilson 2	*	1775
L. T. Burns et al, Turbeville 9-D	300	1463
Turbeville 10-D	150	1465
Turbeville 1-F	350	1470
Bridwell-Heydrick Co., Abercrombie-Taylor 16-A	*	1380
Key 1	*	1505
Consolidated Oil Co., Andrews 1	*	1100
Continental, Oldham 17	30	1342
Freeman-Hampton Oil Corp., Ferguson 21-A	5	1576
Golding-Cochran & Cline, Prideaux 14	20	672
Prideaux 16	25	668
Maer-Staniforth, McCarty 3	*	1399
Magnolia, R. Darilek 9	12	1418
Marland & Consolidated, Ward 3	125	1022
Ward 4	30	1051
Phillips & Skinner, Lyles 2	*	1603
Plains Prod. Co., Lyles 2	*	1560
Shappell Oil Co., Jackson 40	*	1806
Texas Co., Love 2	120	1370
Wichita Prod. Co., Neal 6	10	1093

BROWN COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Bowers et al, Eads 4	35	1320
Cranfill-Reynolds Oil Co., Dunn 1	8	1180
Davis 1	*	1290
Curry et al, Newton 3	100	1285
Empire O. & G. Co., Newton 1	15	1220
Gibson Oil Corp., Shore 3	100	1245
Humble, Foster 12	20	1191
Fry 3	60	1340
J. T. Hodnett 15	40	1208
A. E. Metts 2	40	1328
Humphreys Bros., Newton 8	*	1250
Magnolia, A. E. Metts 1	*	1590
McGinley et al, Newton 1	*	1356
Quinn et al, Pugh 3	*	1365
Root et al, Pugh 1	*	1358
Pugh 2	*	1340
Rosenfield et al, Davis 1	35	1295
Sawyer et al, White 17	10	1320
Shoup et al, Byler 15	190	1274
Sinclair, J. H. Fry 16	675	1305
J. H. Fry 17	800	1307
J. H. Fry 18	720	1313
J. H. Fry 19	425	1323
Sorrells et al, White 1	*	1365
Texas Co., R. M. Lowe 15	340	1295
R. M. Lowe 17	530	1279
Hickman 14	40	1199
Valley Oil Co., Teston 5	50	1226
Vaughan & Evans, Eads 1	5	1329
Vondran et al, Keeler 1	3	1653
Wilson et al, Newton 3	*	1269

BURKBURNETT

Company, Well and Location	Initial Production Bbls.	Depth
Chenault, Palmer & Burch, Chapman 4	2	1611
Magnolia, Richard Ramming 1	10	1790
Ramming 18-B	40	1710
H. C. Obenhaus 1	*	2065
C. P. Sheldon et al, Obenhaus 3	60	1667

CALLAHAN COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Humble, Hickman 1	*	1261
Loweree et al, Cook 1	*	1004
Milham Corp., Barr 1	*	2060
Moore-Snebold, Boydston 1	*	1500
Prairie, Chas. Neeb 1	*	1500
Shaw et al, Crutchfield 1	*	1249

CARSON COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
McMan O. & G. Co., E. F. Bryan 2, shot	250	3233
E. F. Bryan 4	300	3226
Prairie, E. F. Bryan 1	*	3235
Roxana, E. F. Bryan 4-A, shot	100	3232
E. F. Bryan 3-D, shot	25	3245
Skelly Oil Co., Bryan 1	200	3220
Texas Co., Magnolia Fee 2, shot	160	3213

CLAY COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Bridwell-Heydrick Oil Co., Stanfield 1	*	2516

COLEMAN COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Gibson-Johnson, Casey 1	*	1513
Monroe Prod. Co., Brown 1	*	2507

COOKE COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
American Ref. Co., J. A. Dennis 8	40	1321
J. A. Dennis 9	20	1182
J. K. Hughes Dev. Co., Embry 4	35	1248
Kewanee O. & G. Co., Dennis 18	35	1295
Oil Operators Trust, Ben Luke 3	20	1314
Stoube & Stoube, Koelser 2	30	1318
Vacuum Oil Co. & Big Indian Oil & Dev. Co., Kitchens 1	*	4310

CORSICANA-POWELL

Company, Well and Location	Initial Production Bbls.	Depth
Garland Kent, Rufus Hardy 11	*	1809
Rufus Hardy 12	10	1580
Magnolia, Rufus Hardy 3	25	1690

CRANE COUNTY

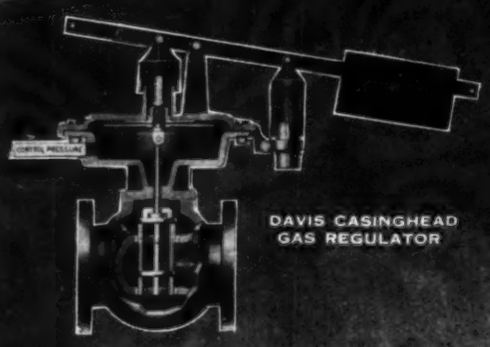
Company, Well and Location	Initial Production Bbls.	Depth
Church & Fields, University 1	100	3000
Gulf, Crier-McElroy 5	90	2905
Magnolia et al, University-Church 4	50	3057
University-O'Keefe 4	60	2993
Independent O. & G. Co., Taylor 13	60	2140
Taylor 73	45	2040

EASTLAND COUNTY

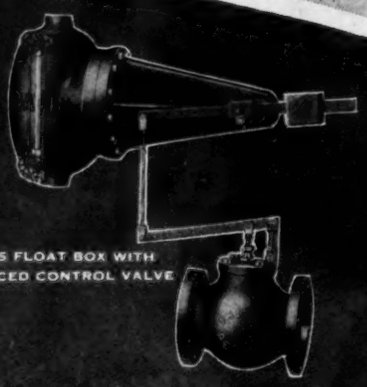
Company, Well and Location	Initial Production Bbls.	Depth
Amyx et al, Connellee 4	¶3	3400
Arkansas F. O. Co., Connellee 10	20	1256
Eastland Oil Co., Citizens Water Works 1	*	1530
Gulf, B. L. Duffer 1	240	3405
Lewis et al, Hargus 1	20	1415

(Continued on page 108)

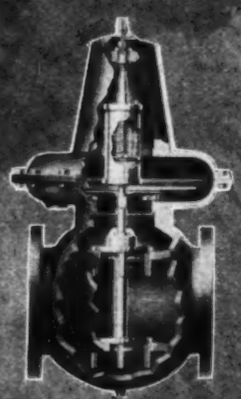
DAVIS REGULATORS



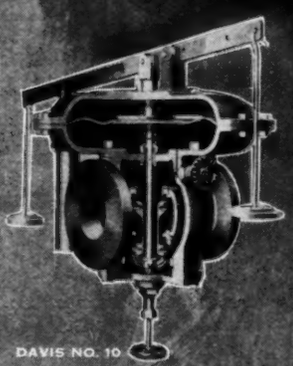
DAVIS CASINGHEAD GAS REGULATOR



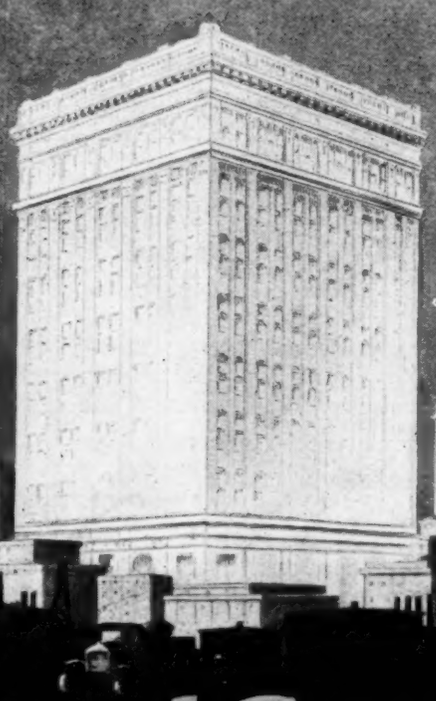
DAVIS FLOAT BOX WITH BALANCED CONTROL VALVE

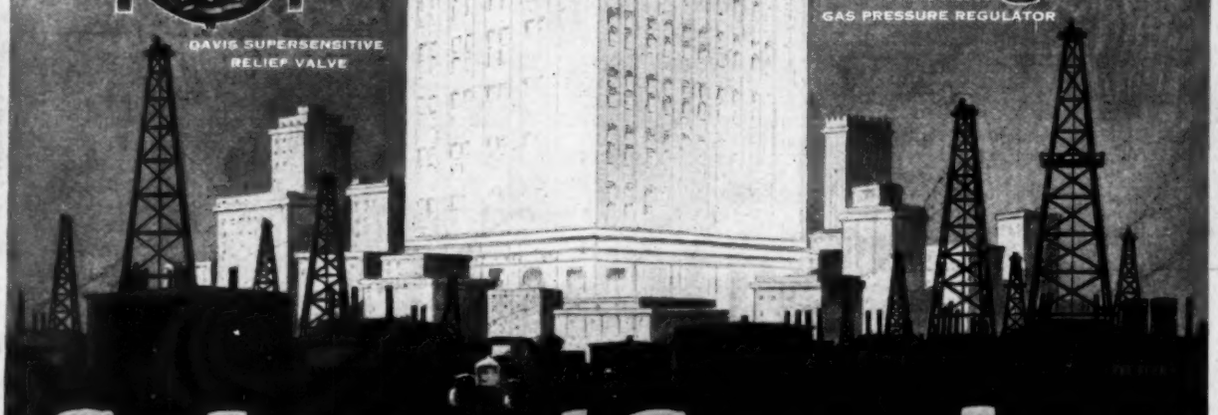


DAVIS SUPERSENSITIVE RELIEF VALVE



DAVIS NO. 10 GAS PRESSURE REGULATOR





Sales and Service

WESTGOTT & GREIS

MEASUREMENT AND CONTROL

Dallas TULSA Los Angeles

WILDCATS FROM ALL SECTIONS

Arkansas Wildcats

COMPLETIONS

Company, Well and Location	Initial Production Bbls.	Depth
Grant County—		
Shaffer Oil Co., Youngblood 1, 34-4-13	*	2278
Lafayette County—		
T. R. Brown's Geological Test, Thomas 1, 15-16-23	*	1503
Union County—		
Magnolia, Childs 5, 8-16-16	*	3235
Marine Oil Co., Thompson 1, 10-18-13	*	....
Thorpe et al, Peck 1, 22-18-13	*	2701

DRILLING REPORT

ASHLEY COUNTY—Rhodes et al's Bledsoe 1, 20-15-7, sd 2554 ft.

BRADLEY COUNTY—Arkansas F. O. Co.'s Arkansas Lbr. Co. 1, 25-16-12, sd 3144 ft. Johnston & Adams' So. Lbr. Co. 1, 12-12-12, fsh 1530 ft. Magnolia's Timber Co. 1, 35-15-11, dr 4220 ft.

COLUMBIA COUNTY — Arkansas F. O. Co.'s Barge 1, 14-18-22, dr 3085 ft. Colquitt et al's Duffer 1, 23-18-19, rig. Columbia Synd.'s Whitehead 1, 14-19-23, tested sw 2209 ft. Haynes et al's Runyon 1, 3-16-21, sd 150 ft. Mair et al's Gantt 1, 15-17-22, dk. Mitchell et al's Franks 1, 25-19-22, sd 150 ft. Scott-Phillips' Davis 2, 6-18-20, sd 2145 ft. Wingfield et al's Bodcaw 1, 4-20-21, sd 2025 ft.

CLARK COUNTY—Whelen Oil Co.'s Barrow 1, 35-10-20, set 12½-inch 47 ft.

DREW COUNTY—McClintock et al's Ogle 1, 35-13-5, sd 2550 ft.

GRANT COUNTY—Jones et al's Meek 1, 5-4-11, rig.

GARLAND COUNTY—Chaywood Oil Co.'s Malvern Lbr. Co. 1, 17-2-17, dk.

HEMPSTEAD COUNTY — Burton et al's Garland 1, 23-10-25, sd 2210 ft.

LA FAYETTE COUNTY—Arkansas F. O. Co.'s Duty 1, 11-19-25, dk. Ken-Saw Pet. Co.'s Red River Lbr. Co. 2, 5-20-24, sd 2840 ft.

LINCOLN COUNTY—Pine Prairie O. & G. Co.'s Carter 1, 33-10-6, sd 235 ft.

LITTLE RIVER COUNTY—Greeson et al's Waldrip 1, 4-13-31, sd 1740 ft. Grote et al's Allen 1, 2-13-21, sd 2941 ft. Johnson et al's Hawkins 1, 10-11-31, sd 1594 ft.

MILLER COUNTY—Lenze et al's Dale 2, 28-15-26, r 2765 ft. W. D. Nash's Priest 1, 26-14-26, sd 3850 ft.

NEVADA COUNTY—Autrey Oil Co.'s McKinney 2, 1-14-21, set 10-inch 42 ft. Fruen et al's Cross 1, 12-13-22, sd 1720 ft; Rhodes 1, 22-12-21, sd 1900 ft. Holmes et al's Wallace 1, 11-14-21, set 6-inch 1188 ft. Humble's Bodcaw 4, 9-15-22, r 3595 ft. Martin et al's Haynie 1, 6-14-20, set 6-inch 1154 ft.

OUACHITA COUNTY — H. E. Clark's Shirley 3, 36-15-17, wosr 2307 ft. Copenhaven et al's Berg 3, 13-15-17, dk. J. E. Crosby's Berry 12, 33-15-15, tested sw 4019 ft. Exchange Oil Co.'s Umsted 3, 4-16-15, dk. A. T. Grayson's Reynolds 1, 21-14-17, set 10-inch 40 ft. Gulf's Bennett 10, 33-15-15, set 10-inch 305 ft; Umsted A-25, 33-15-15, set 10-inch 293 ft. Magnolia's Gosden 2, 15-15-19, set 12½-inch 180 ft; Smith 4, 36-15-17, set 6⅝-inch 2242 ft. Middlesex Oil Co.'s Shirley 4, 36-15-15, set 6⅝-inch 2250 ft. J. D. Reynolds' Chandler 1, 3-14-18, sd 1850 ft. A. M. Sutton's Schoolhouse 2, 28-15-16, sd 3060 ft. T. & P. C. & O. Co.'s Laney 9, 31-15-15, dr 2394 ft. Unity Pet. Co.'s Umsted A-8, 33-15-15, set 4¾-inch 2388 ft; Murphy 1, 2-16-15, dr 2569 ft.

UNION COUNTY—C. H. Allison's Howard 1, 8-19-13, sd 15 ft. Arkansas F. O. Co.'s La Grone 8, 1-16-17, dk. Bondurant et al's Garner 1, 8-18-12, r 2635 ft. Crescent Oil Co.'s Saxon 1, 5-16-16, sd 53 ft. Garrett & Modisette's Union Saw Mill 1, 7-18-13, coring 3007 ft. W. H. Gilliland's Hodges B-1, 1-16-17, dr 2320 ft. Gulf's Murphy 23, 9-16-15, set 10-inch 295 ft. Humble's Flenniken B-2, 9-16-15, dr 2555 ft; Goodwin 6, 20-17-16, tested dry 2195 ft. Imperial O. & G. Co.'s Murphy 4, 9-16-15, set 4½-inch 2761 ft; Murphy 5, 9-16-15, dr 2600 ft; Goodwin 1, 26-17-16, sd 3118 ft. E. M. Jones' Lawton A-2, 10-16-15, dk. Keen & Wolf's Murphy 4, 9-16-15, sd 2650 ft. Lion O. & R. Co.'s Bilyew C-7, 8-16-15, dk; Flenniken A-9, 10-16-15, set 6⅝-inch 2391 ft; Graves 6, 3-16-15, wosr 1966 ft; Murphy D-7, 8-16-15, set 4½-inch 2769 ft; H. Murphy 6, 9-16-15, wosr 2702 ft; Hardy Murphy 2, 9-16-15, rig. Louisiana O. R. Corp.'s Murphy B-3, 9-16-15, set 4½-inch 2715 ft. Magnolia's Childs 6, 8-16-16, sd 3000 ft; Nicol-Childs 1, 8-16-16, sd 2700 ft; Hatfield 10, 7-16-15, set 6⅝-inch 2625 ft; Laney 3, 8-16-16, dk; Laney 4, 8-16-16, dk; Wilson 6, 17-16-15, dk; Wilson 7, 17-16-15, dk. Marine Oil Co.'s Winn Estate B-1, 10-18-13, set 12½-inch 140 ft; Thompson B-1, 10-18-13, set 12½-inch 155 ft. J. L. Meek's Milner 2, 15-17-16, rig. Mountz et al's Pratt 6, 8-18-15, set 10-inch 170 ft. O. G. Murphy's T. C. Murphy 6, 9-16-15, cemented back to test 2200 ft; Murphy A-3, 9-16-15, set 4½-inch 2709 ft. National Cons. Pet. Co.'s Fagg 2, 8-16-16, set 10-inch 120 ft. Natural G. & F. Corp.'s Flenniken 4, 8-16-15, dr 2440 ft; Murphy F-1, 9-16-15, dr 2758 ft; Bilyew 4, 9-16-15, arr to plug back to test 2427 ft. Ohio O. Co.'s Crain 1, 1-17-14, tested dry 2616 ft; Murphy 7, 9-16-15, set 4½-inch 2703 ft. J. W. Olvey's Simmons 1, 15-18-13, set 12½-inch 113 ft. Peer Oil Co.'s Palmer B-1, 9-16-15, cemented bottom of hole 2666 ft; Palmer B-7, 9-16-15, set 8¼-inch 2418 ft. A. H. Ramage's Lawton C-11, 10-16-15, set 6⅝-inch 2391 ft. Rovenger Oil Corp.'s Harrell 4, 14-17-16, dk; McCain 1, 4-17-14, dr 805 ft. Stewart et al's Murphy 8, 9-16-15, dk. Sunny Jim Oil Co.'s Flenniken 4, 9-16-15, rig. Superior Oil Co.'s Jerry 7, 32-17-13, tested sw 2915 ft; Cordell 2, 5-18-13, set 10-inch 162 ft. Sun O. Co.'s Hays 20, 3-16-15, set 4¾-inch 2349 ft. Unity Pet. Co.'s Roper 15, 3-16-15, dk. Wingfield et al's Green 1, 15-19-13, dk.

Oklahoma Wildcats

COMPLETION

Company, Well and Location	Initial Production Bbls.	Depth
Seminole County—		
I. T. I. O., Payne 1, nw ne 2-8-6	*	4365

DRILLING REPORT

BECKHAM COUNTY—Magnolia's 1, ne 21-9-23, lcn.

CADDO COUNTY—W. J. Hartley's Calbreath 1, se ne se 28-5-12, sd 3394 ft. J. A. Abernathy's 1, c sw ne 23-5-12, rebldg rig.

CANADIAN COUNTY—T. B. Slick et al's Pazourock 1, sw ne 29-13-5, ur 5-inch 4454 ft.

CLEVELAND COUNTY—Sooner's 1, c sw 15-7-1, td 2994 ft, fsh 8-inch cas.

CIMMARON COUNTY—Ramsey Bros.' 1, c nw ne 27-5-5, top 4095 ft, td 4150 ft. Brokin et al's Smaltz 1, se ne ne, spd and sd.

COMANCHE COUNTY—Mid-Kansas' Cox 1, ne se ne 30-1-13, td 1920 ft, sd.

GARFIELD COUNTY—Sinclair's Fee 1, sw sw ne 2-20-5, fsh tools 5018 ft.

GRANT COUNTY—Ostot Dev. Co.'s Snyder 1, ne 6-28-4, td 4546 ft, fsh 5-inch cas. Brazell et al's Royce 1, sw nw 34-28-4, sd 550 ft. Dedman et al's Sherran 1, ne sw 16-26-3, sd 1910 ft.

HUGHES COUNTY—Snodwer et al's Stewart 1, nw se 11-5-8, proposed lcn.

KIOWA COUNTY—A. C. Varner's Boham 1, se sw nw nw 5-6-10, sd 1127 ft, litigation

KINGFISHER COUNTY—Pet. Eng. Core Drilling Co.'s Canfield 1, c ne se 6-16-7, rig. McKenna et al's Sturgeon 1, nw sw 27-16-6, sd 2115 ft. Reiter et al's Davison 1, sw 23-15-5, rig, T. B. Slick has taken over.

NOTE—Following is the explanation of abbreviations, signs, etc., used in completion and wildcat reports: *—dry hole, abandoned well; ‡salt water; †—junked and abandoned; ¶million cubic feet of gas; abn—abandoned; bbls—barrels; b. s.—basic sediment; cas—casing; co—cleaning out; dk—derrick; dr—drilling; fsh—fishing; ft—feet; in—inches; lcn—location; m—milling; n, s, e, w—north, south, east west; r—reaming; sd—shut down; sdtr—sidetracking; sp—spudding; sr—straight reaming; std—standardizing; sw—salt water; td—total depth; ur—under reaming; wo—workover; wosr—waiting on standard rig.

LINCOLN COUNTY — Wentz's Lukenbeal 1, sw se 34-17-2, td 27-95, sd, start up soon. Mid-Kansas' Griswold 1, ne nw 33-17-4, sd 2535 ft, td.

LOGAN COUNTY—Bran et al's Scott 1, nw se 33-19-4, hfw 4014-4047 ft, ur 6-inch cas. Carter's Rogers 1, sw nw 32-19-3, dr 4958 ft. Haley et al's Quair 1, sw se 11-18-3, td 1900 ft, rig rebuilt and co. Zingery et al's Baker 1, sw se 28-17-1, dr 5316 ft. T. B. Slick's Berry 1, sw se 28-17-1, sand 4658-61 ft, 2800 ft oil, run 5-inch cas, co. Blackford's Lier 1, c e l n½ se 28-16-1, sd 1675 ft, litigation.

PAYNE COUNTY—Twin State's Tibler 1, ne nw ne 23-18-1, dr 2735 ft.

NOBLE COUNTY—Geo. Miller's 101 Ranch 1, ne 1-24-1, dr 4375 ft.

POTTAWATOMIE COUNTY—Shaffer et al's Ives 1, nw se se 12-10-3, sd 3620 ft. Tidal's Kenyon 1, sw se se 3-8-4, td 4890 ft cemt cave. I. T. I. O.'s School land 1, se sw 16-9-5, cemt 8-inch cas 3573 ft.

SEMINOLE COUNTY — Barnsdall's Sullivan 1, ne sw 10-9-5, top Earlsboro sand 3490 ft, show oil and gas. Carter's Harjocke 1, ne nw nw 26-10-6, Misner sand 4307 ft,hl 4320-30 ft. Superior's Noble 1, se sw se 10-9-6, hl 4105 ft, 4145 ft, hfw ts Wilcox. Pure's Joah 1, c e l nw ne 15-9-7, td 3494 ft, 3513 ft, 10 bbls oil now dead. Magnolia's Strother 1, se nw 17-8-6, dr 2600 ft. I. T. I. O.'s Sandlin 1, ne ne 9-7-6, sd 278 ft; House 1, nw nw nw 1-7-6, sand 3100 ft, 10 m gas to 3163, hfw 3185 ft; Sarah Wiseman 1, nw sw 32-7-7, 2505-60 ft; Payne 1, nw ne 2-8-6, ts Wilcox 4365 ft, td d and a. Atkinson et al's Street 1, se ne nw 30-7-8, td 4319, td 4476 ft, hfw, sd. Simmons et al's Lammeter 1, nw ne ne 7-7-6, rig.

TILLMAN COUNTY—Ossie Drilling Co.'s Snelling 1, se se se 13-1-18, sd 1525 ft.

TEXAS COUNTY—H. F. Wilcox's Zea 1, sw se 29-3-12, ur 6-inch at 3620 ft. Haley et al's Ellison 1, nw se se 4-1-12, dr 36-75 ft. Connell et al's Tensey 1, se nw 5-1-19, spd and sd.

PONTOTOC COUNTY—American Oil Co.'s Ray 1, se nw 34-5-6, sd 2000 ft. Tom Slick's Carham 1, sw se 21-5-6, dr 250 ft. Shaw et al's X 1, ne sw 33-5-6, dr 675 ft. W. R. Ramsey's Butler 1, ne ne 20-5-8, rigging up standard.

Kansas Wildcats

BARBER COUNTY—Vickers Pet. Co. et al's Ott 1, sw 30-32-14, fsh 4506 ft.

BARTON COUNTY—Huffin et al's Smith 1, ne se se 17-19-11, fsh 5090.

LYON COUNTY—Culp et al's 1, sw se 26-19-10, dr 1300 ft. Gashe & Balliere's Stratton 1, se nw 32-20-13, dr 1160 ft.

RENO COUNTY—Sheldon et al's Hanfison 1, se nw 10-23-4, sd 4001 ft.

RUSSELL COUNTY—Wilcox et al's Wilson 1, se sw 14-12-13, ur 3631 ft.

SEWARD COUNTY—Wilson et al's Son 1, c ne ne ne 14-33-33, sd 400 ft.

Northern California Wildcats

COMPLETION

Company, Well and Location	Initial Production Bbls.	Depth
Devils Den—		
Devils Den Prod. Co. No. 4	75	1320

DRILLING REPORT

ANTELOPE PLAINS—W. H. Davis' 1, dr 2645 ft.

BELRIDGE—Union's Colm 1, dr 840 ft. Zurich Oil Co.'s 1, rigging.

BUTTONWILLOW — Milham Exploration's Kern 1-A, reaming 3987 ft. Salisbury 1, material on ground.

COMANCHE POINT—Kern 29 Oil Co.'s' 1, sd 2440 ft.

DEVILS DEN—Marathon Oil Co.'s 1, fsh

ISCO BITS ARE FULLY GUARANTEED

Not just the pin, but the whole bit, if it's an ISCO BIT, is fully guaranteed for a period of 15 months.

If, during that time, your ISCO BIT fails to stand up, we will replace it with a new one or give your money back.

The special oil heat treating process to which all ISCO BITS, now in manufacture at Oklahoma Iron Works Plant, are subjected, makes it possible for us to fully guarantee the entire bit.

This is just another step forward in the manufacture of highest quality of drilling equipment distributed by us and manufactured by Oklahoma Iron Works, and in putting same out to the industry, we have set a new pace in the manufacture of better drilling tools.

ISCO BITS, fully guaranteed, are now being turned out of the Oklahoma Iron Works plant in all sizes, and are being stocked for you at our branch stores.

You can use these fully guaranteed ISCO BITS with the assurance that you are going to receive perfect satisfaction.

A written guarantee will be mailed you promptly upon receipt of notice of sale at our Tulsa Office.

Let us tell you more about these bits and new process that makes possible the guarantee. Write us direct for information, or call at any of our stores, who will be glad to serve you.

INTERNATIONAL SUPPLY CO.
TULSA INTERNATIONAL ISCO SUPPLY COMPANY OKLA.

4390 ft. Midway-Northern Oil Co.'s 1, prep to resume dr 150 ft. Robins Oil Co.'s 1, bailing 1598 ft. R. H. Sayers' 1, dr 380 ft.

ELK HILLS—McAdams Pet. Co.'s 1, prep to set cas 3500 ft.

GOULD HILLS—A. J. Bomke's 2, sd 610 ft. Carolina-Western's 1, sd 1041 ft. Max L. Pray's 1, dr 768 ft. Rhoads Oil Co.'s 1, co 1485 ft. L. E. Westrich's 1, dr 1640 ft.

JASMINE-DELANO — Chanslor - Canfield's Quinn 1, rigged up.

McKITTRICK—Abbott Pet. Co.'s 1, sd 1840 ft. Lacy-Esper Pet. Co.'s 1, sd 3260 ft. McKittrick-Hills Oil Co.'s 1, dr 2210 ft. Ridge Oil Co.'s 1, co 3050 ft.

NORTH MIDWAY—Bolsa Chica Oil Co.'s 1, sd 185 ft.

SUNSET—Fresno-Sunmaid's 1, sd 4200 ft. Gore Exploration Co.'s 1, dr 2450 ft. R. H. Whiston's 1, material on ground.

SHALE HILLS — Huntington-Howthorne's 1, sd 408 ft. Nelson & Mountford's 1, fsh 1800 ft. Oildale Oil Co.'s 1, dr 558 ft.

TEMBLOR HILLS—Fortuna Oil Co.'s 1, dr 2596 ft. Hovey Hills Oil Co.'s 1, sd 2540 ft. Painted Hills Oil Co.'s 1, sd 500 ft.

TEHACHAPI-MOJAVE — Crusaders Oil Co.'s 1, sd 2284 ft. John B. Harding's 1, running 8¼ cas 450 ft. C. R. Rasmussen's 1, dr 1376 ft.

UPPER KERN RIVER—Barnes Oil Co.'s 1, prep to resume dr 1356 ft. Commerce Oil & Leasing Co.'s 1, sd 2508 ft.

UPPER POSO CREEK—E. Buchner's 1, fsh 960 ft.

FRESNO COUNTY

CLOVIS—Fresno-Madera Oil Co.'s 1, sd 3760 ft. W. W. Taylor's 1, sd 2100 ft.

RAISIN CITY—Freno-United Oil Co.'s 1, sd 3961 ft.

WARTHAM—Bald Mountain Dr. Co.'s 1, sd 905 ft. Progressive Oil Co.'s 1, sd 1105 ft.

KINGS COUNTY

KETTLEMAN HILLS — Ahlburg Gasoline Corp.'s 1, rigged. Associated's 1, sd 2043 ft. Chanslor-Canfield's 1, rigging rotary. Bolsa Chica Oil Co.'s 1, sd 2360 ft. General Pet. Corp.'s 1, dr 2955 ft. Hugh McPhail's 1, prep to resume 1972 ft. Milham Explor. Co.'s 1, bldg rig. South Coalinga Oil Co.'s 1, rigging rotary.

VENTURA COUNTY

CAMARILLO—California Pet.'s Arniel 1, dr 1356 ft. Standard's Camarillo 1, dr 4846 ft.

CASITAS-OJAI—Miley Explo. Co.'s Casitas 2-A, sd 568 ft.

HOPPER CONYON — Hopper Canyon Oil Co.'s 1, trying to locate water.

MOORPARK—E. A. Parkford's Lloyd 1, will resume dr 2165 ft. Shell's Berlywood 1, dr 2201 ft.

PIRU—Superior Oil Co.'s Pena 1, dr 2990 ft.

RINSON—Montecito Oil Porducer's 1, sd 3200 ft.

SESPE—Sespe Oil Co.'s Smith 2, sd 4003 ft.

VENTURA — Associated's Dabney-Lloyd 1, rigging rotary. Chanslor-Canfield's Hobson 1A, dr 5855 ft; Hobson 1B, dr 2900 ft. Milham Explo. Co.'s Sexton 1, fsh 7092 ft. Rio Grande Oil Co.'s Canet 1, dr 4312 ft. Star Pet. Co.'s Star-Canet 1, fsh 3210 ft.

SANTA BARBARA COUNTY — Channell Oil & Dev. Co.'s 1, dr out 4200 ft. Hollywood Oil Corp.'s Sudden, sd 1280 ft. Summerland Oil Co.'s Becker 1, dr 2730 ft.

SAN LUIS OBISPO CO.—Barneyberg Oil Co.'s 1, sd 4500 ft. Brinkman Oil Co.'s 1, sd 540 ft. Carlisle Oil Co.'s 1, sd 2680 ft. Painted Hills Oil Co.'s 1, dr 1440 ft. E. G. Star's 1, fsh 3570 ft. Richfield's 1, rigging rotary 100 ft. Walklin Pet. Co.'s 1, re-dr 2472 ft.

TULARE COUNTY—Ducor Drilling Co.'s 1, dr 3730 ft. J. W. Griffth's 1, fsh 2525 ft. Ozena Oil Co.'s 1, dr 1853 ft. Wm. C. Resser's 1, prep to resume dr 1815 ft.

SAN MATEO CO. — Shell's Cowell 1, dr 1722 ft.

SONOMA COUNTY—Shell's Murphy 1, dr 4629 ft.

ALAMEDA COUNTY—H. P. Budd's 1, material on ground. Calhoma Oil Co.'s 1, co 498 ft. Thomas & Hammill's 1, co 1135 ft. Talbot Oil Co.'s 1, dr 485 ft.

CONTRA COSTA CO.—Wm. Edward's 1, dr 2187 ft.

COLUSA CO. —Continental's 1, trying to pull cas 3872 ft.

HUMBOLDT COUNTY—Eureka Oil Co.'s 1, dr 2575 ft. Humboldt Oil Co.'s 1, dr 2315 ft.

Southern California Wildcats

ATHENS—Union's Mosier 1, dr 5602 ft.

BANDINI — Pan-American's Banidini 1, dr 5431 ft.

BOYLE HEIGHTS — Haskell M. Green's P. A. S. 1, sd 1400 ft.

CLEARWATER — Clearwater Pet. Corp.'s Blinn 1A, sd 1400 ft.

CLAREMONT—Claremont O. & G. Co.'s 1, sd 1130 ft.

COYOTE — WEST — Bastanchury Ranch Co.'s 1, dr 3845 ft.

DAVIDSON CITY—Cal. Well Drlg. Co.'s Del Amo 1, dr 4680 ft.

DOMINGUEZ—Dominguez Ext. Oil Co.'s 1, dr 5110 ft.

DOWNEY—C. F. Ackers' Downey 1, sd 343 ft.

EAGLE ROCK — Calwin Oil Co.'s 1, fsh 6123 ft.

EL SEGUNDO—Rider Synd.'s 1, sd 2300 ft. So. Cal. Drlg. Co.'s 1, stg 4400 ft.

GARDENA—Circle O. & G. Co.'s 1, sd 3360 ft.

HAWTHORNE—Winwell Oil Co.'s Dome 1, sd 5586 ft.

IRVINE — Calny Oil Co.'s Irvine 1, sd 4247 ft.

LAWNDALE—Smith Pet Corp.'s Johnson 1, dr 5890 ft.

LANCASTER — John B. Harding's 1, co 1860 ft.

LONG BEACH—Miller & Haley's 1, ready to abn 4865 ft.

MAYWOOD—Magnolia Pet. Synd.'s 1, sd 4452 ft.

NEWHALL-SAUGUS — W. W. Stabler's Castaic 1, fsh 3408 ft.

PALOS VERDES — Petroleum Securities' Weston 1, dr 250 ft.

POTRERO—General Pet. Corp.'s Smith 1, dr 4145 ft. Associated Oil Co.'s Cypress 1, cmt 4450 ft.

SAN FERNANDO — Standard's Univ. 1, dr 5672 ft.

SAN JOSE HILLS—Bardeen Oil Co.'s 3, sd 1938 ft. D & B Oil Co.'s Amar 1, stg 3560 ft.

SAN JUAN CAPISTRANO—Norswing & Halbertson's 1, sd 4060 ft.

SUNSET BEACH—General Pet.'s Lomita 1, dr 4460 ft.

TELEGRAPH CANYON — Quadra Pet.'s M. J. & M. 1, stg. 4210 ft.

TOPANGO CANYON—Standard's Austin 1, dr 2378 ft.

VAN NUYS—Van Nuys Community's test, ready to abn 3860 ft.

RIVERSIDE COUNTY—Corona O. & G. Co.'s 1, sd 1550 ft. Spindletop Oil Synd.'s 1, re-cmt. 2615 ft. Trabuco Oil Co.'s 1, dr 1978 ft.

SAN BERNARDINO COUNTY—Burgess-Goodale's Riggins 1, sd 4110 ft. Como Oil Co.'s Cajon 1, sd 1380 ft. Colton Terrace Oil Co.'s Colton 1, dr 1313 ft. Hesperia Oil & Gas Co.'s 1A, dr 3312 ft. H. & P. Oil Co.'s Ranger 1, stg 2103 ft. McCarty 1, dr 1000 ft. Western Pacific Oil Co.'s 3, sd 2800 ft.

SAN DIEGO COUNTY—Cardiff Oil Corp.'s Turner 1, dr 2171 ft. Oceanside Oil Co.'s Dunn 1, sd 3210 ft. Torrey Pines Oil Co.'s 1, stg 428 tf.

Mountain States

WYOMING

Lake Valley Oil Co.'s Eight Mile Lake 1, se 142-0-88, sd 4912 ft. Buck Creek Oil Co.'s Ant Hills 1, ne 25-37-63, rigged. Producers & Refiners' Murphy dome 1, 8-43-91, fsh 2986 ft; Medicine Bow 1, 25-21-79, setting 8¼ cas 3499 ft; Muskrat 1, 34-34-92, rig; Big Sand Draw, 1432-95, dr 2655 ft; Big Sand Draw 1, 14-32-95, fsh 3145 ft; Big Sand Draw 5, dr 3412 ft; Tensleep 1, 13-46-89, rig; Garland 2, 24-56-89, sd 2640 ft. MacPherson Oil Co.'s Little Sand Draw 1, nw 2-44-96, dr 2785 ft. Criterion Oil Co.'s Douglas 1, sd 3120 ft. Carter Oil Co.'s Nowood 1, sw 5-48-90, fsh 1825 ft; Billy Creek 2, se 17-48-82, will set 6⅝ cas 4400 ft. Fairway Oil Co.'s Crazy woman Creek 1, ne 17-46-62, sd 1210 ft. I California Co.'s Garland 1, ne 15-44-97, small quantity oil, td 3800 ft. Wyoming-Montana Development Co.'s Lamce Creek 1, ne 7-35-65, dr 3400 ft. Union Oil Co.'s Fremont County 1C, ne 15-5-1, dr 4375 ft; Black Mountain 1AS, nw 34-43-91, dr 3522 ft; Black Mountain 1AB, nw 28-43-91, dr 2590 ft; Park County 1T, nw 22-47-101, dr 490 ft; Fremont County 1G, se 27-1-1, sd 1660 ft. Ohio Oil Co.'s Oregon Basin 3, 8-51-100, drilling with hole full of oil, td 3493 ft; Oregon Basin 4, 8-51-100, sd 2210 ft; Byron 2, 33-56-99. Texas Prod. Co.'s Maverick Springs 7, 26-6-101, dr 1260 ft. Bridger Oil Co.'s Sage Creek 1, se 21-1-1, unable to shut off water, sd, td not given.

COLORADO

Repollo Oil Co.'s Boulder County 1, 33-1-70, dr 4200 ft. Left Hand Oil Co.'s Boulder County 1, 34-3-70, dr 1468 ft. Donnelly Bros.' Fremont County 1, 33-18-70, dr 2718 ft. Northeastern Colorado Oil Co.'s Logan County 1, 36-8-55, setting 8¼ cas 2602 ft. Essox Oil Co.'s Boulder County 1, 5-1-70, dr 2110 ft. Offset Oil Co.'s Boulder County 1, 28-1-70, sd 3465 ft. Marland's Moffat County 1, 34-4-92, dr 3590 ft. Continetal's Walden 1P, 1-9-79, sp; Walden 1P, 2-9-79, dr 150 ft. Midwest's Rio Blanco County 2, 30-2-102, dr 2962 ft; Moffat County 1, 22-492, sdtr 3175 ft. Oiliferous Oil Co.'s Fremont County 1K, 35-18-70, sp; 1L, 35-18-70, dr 100 ft. Boone Oil & Gas Co.'s Pueblo County 1, 33-18-61, dr 2223 ft. Texas Prod. Co.'s Rio Blanco County 2, 31-2-102, dr 3003 ft; Moffat County 1, 27-3-94, sdtr 3206 ft. Foley & Goldworthy's Las Animas County 1, 11-30-60, dr 830 ft. C. E. Pluckett's Pueblo County 2, 30-20-63, dr 2912 ft. J. J. Selvin's Fremont County 1, 35-18-70, small amount of oil, td 1090 ft.

NEW MEXICO

San Juan Petroleum Co.'s San Juan County 1, 17-29-12, dr 1125 ft. Frio Oil Co.'s Curry County 2, 11-5-35, dr 622 ft. Mid Continent's San Juan County 1, 22-29-11, dr 225 ft. Congress Oil Co.'s San Juan County 1, 34-29-11, fsh 1730 ft. Union Oil & Mining Co.'s San Juan County 2, 9-29-9, wosr to replace one burned, 2948 ft. Argo Oil Co.'s Quay County 1, 5-7-31, dr 800 ft. Maljamar's Lea County 1, 15-17-32, rig. Cap Rock O. & G. Co.'s Lea County 1, 11-16-32, dr 760 ft. Portage O. & G. Co.'s San Juan County 1, 34-30-13 dr 1835 ft. Exploration Co.,'s Lea County 1, 25-19-35, dr 1220 ft. Continental's Table Mesa 11, 3-27-17, dr 625 ft. Covert Interests' Lea County 1, 25-19-35, ur 1920 ft.

UTAH

Boulder Knoll O. G. Co.'s Boulder Knoll 1, 17-34-24, dr 1910 ft. Embar Oil Co.'s Moab 1, 34-25-21, co 3060 ft. Utha-Southern Oil Co.'s Cedar Mesa 1, 28-40-18, dr 1875 ft. Empire's Gibson 1, 6-30-21, dr 1268 ft. Utah Pet. Co.'s Gibson 1, 1-30-20, dr 1375 ft. Deseret Pet. Co.'s Gibson 1, 3-30-29, dr 350 ft.

Louisiana Wildcats

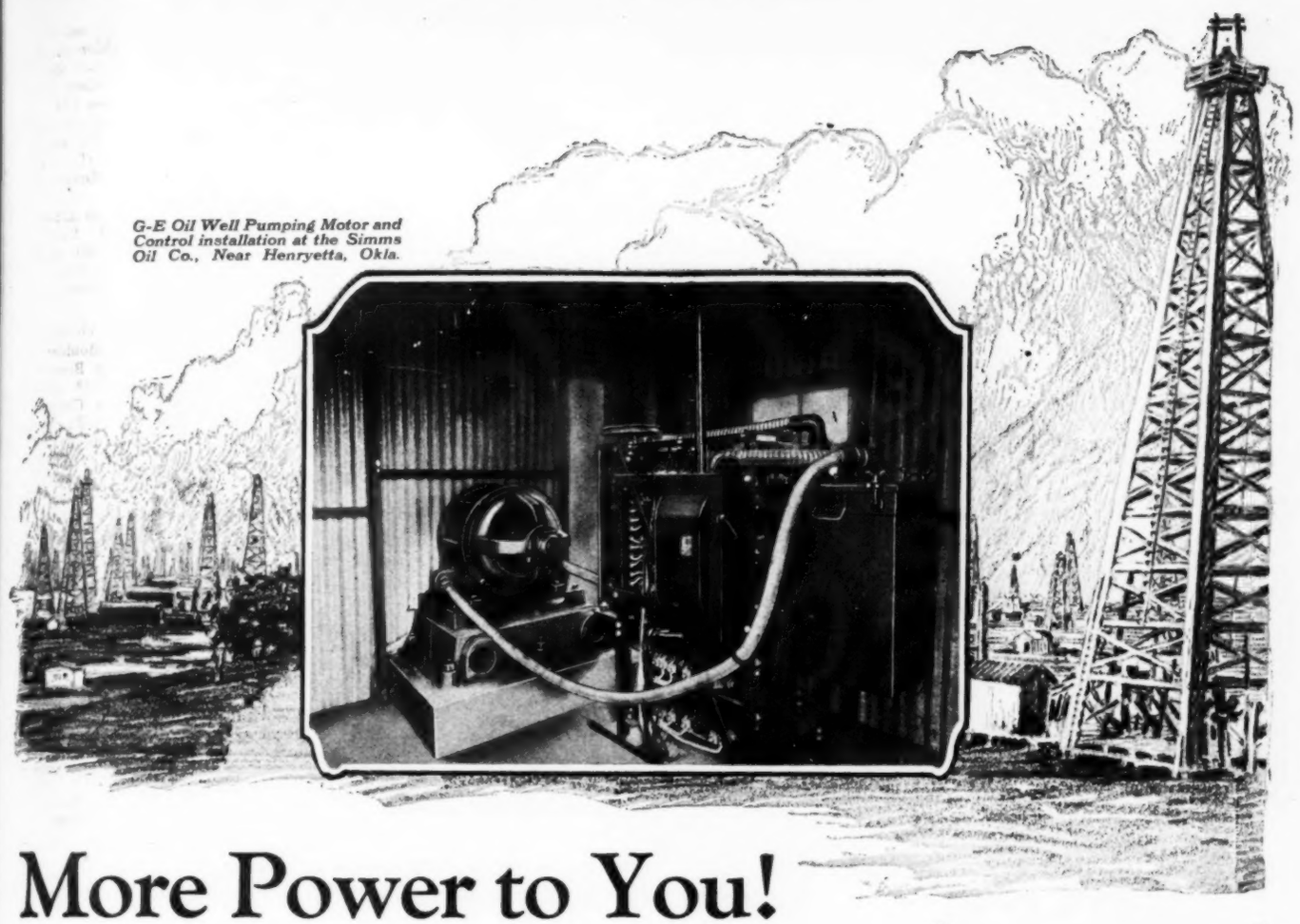
COMPLETIONS

Company, Well and Location	Initial Production Bbls.	Depth
Caddo Parish—		
Dixie's Robertshaw 84, 13-21-15	*	1700
Lewis Oil Corp.'s Caddo M. L. Co. 8, 24-22-15	*	1824
Claiborne Parish—		
Standard's Mitchell 1, 29-21-7	*	2096
Grant Parish—		
Billeaud et al's Ball 1, 19-7-1e	*	2400
Gulf's Swope A-3, 8-9-1e	*	2383
Texas Co.'s Swope 2, 16-9-1e	*	1603
Work-Phillips' Holmes 1, 20-9-1e	*	1620
La Salle Parish—		
Honeycutt et al's Morrow 1, 35-10-1e	*	1560

DRILLING REPORT

BIENVILLE PARISH — Kimbrough et al's Cargyle 1, 27-15-8, sd 1550 ft.

BOSSIER PARISH — Anderson et al's Bulkley 1, 9-20-13, sd 2040 ft. Bethany O. & G. Co.'s Dodson 1, 16-23-12, dr 2710 ft. Clark & Norton's Ford 1, 32-23-12, tested dry 1850 ft. Doern et al's Thomas 1, 9-22-11, sd 2560 ft. Gulf's Hodges 6, 24-16-12, blg 1561 ft. Harrell Drlg. Co.'s Atkinson 1, 2-18-12, dr 745 ft. Humble's B. & W. 30, 15-19-11, dk. Louisiana O. R. Corp.'s Blanton 1, 23-23-12,



G-E Oil Well Pumping Motor and Control installation at the Simms Oil Co., Near Henryetta, Okla.

More Power to You!

Why quit producing for 55 days every year when it can be avoided? Practically every oil operator not yet pumping his beam wells by electric drive suffers this loss. Pump-drive shut-down means crude lost forever—hundreds of barrels of oil that you will never recover.

G-E Motorized Power decreases shut-downs and delays due to engine trouble; its installation results in an average increase in production of at least 15%.

G-E Type OMT two-speed motors completely fill all the power needs of a producing well—pumping, pulling, baling, cleaning, re-drilling, and pulling the casing when necessary. In thirteen years nearly 200,000 h.p. of these motors has gone into this service—putting pumping wells on a new standard of economy in operation and of increased crude production.

General Electric supplies complete electric equipment to the oil industry. With warehouse facilities close to your operations, G-E readily furnishes motors, controllers, transformers, arresters, and other protective devices, capacitors for power factor improvement, switching equipment, etc.

G-E oil field specialists and G-E service at: Dallas, Denver, Houston, Kansas City, Oklahoma City, Tulsa, Los Angeles, San Francisco.

Apply the proper G-E Motor and the correct G-E Controller to a specific task, following the recommendations of G-E specialists in electric drive, and you have G-E Motorized Power.

Motorized Power
—fitted to every need

200-53

GENERAL ELECTRIC

GENERAL ELECTRIC COMPANY, SCHENECTADY, N. Y., SALES OFFICES IN PRINCIPAL CITIES

dr 2502 ft. Magnolia's Dodson 1, 15-23-12, set 13⅜-in 447 ft. Palmer Corp.'s Bossier Lbr. Co. 3, 9-16-11, dr 3832 ft. Sligo Synd.'s Webb 1, 24-17-12, sd 2392 ft. Simms Oil Co.'s Sandidge 2, 5-18-11, dk. Texas Co.'s Caplis 14, 24-16-12, set 10-in 63 ft. Tubbs et al's Jacobs 1, 26-20-13, sd 1520 ft. Woodley & Collins' L. & A. 2, 14-23-12, blew in 3-18-'27, making an estimated ¶3-5 and spraying 5-10 barrels of oil.

CADDO PARISH—Big Lake Oil Co.'s Rhodessa 1, 23-23-16, dr 2615 ft. Bahan et al's Wilburn 1, 4-7-16, dr; Wilburn 2, 4-7-16, rig. Bethany O. & G. Co.'s Offenhauser 1, 1-20-16, dr 1620 ft. Berston's Murff 6, 12-21-16, set 10-inch 45 ft. Burford et al's Dambley 1, 2-20-16, sd 1648 ft. Dixie's Robertshaw 81, 13-21-15, set 6-in 3727 ft; Robertshaw 83, 14-21-15, set 10-in 42 ft; Slattery 10, 27-21-15, coring 391 ft; Noel A-2, 13-21-15, set 6-in 3633 ft; Robertshaw 85, 14-21-15, set 10-in 104 ft. Dodson et al's Rives 4, 5-20-16, set 10-in 60 ft. J. B. Files (formerly Ackerman et al) Payne 1, 35-23-16, dr 920 ft. A. C. Glassell's Thigpen & Herald 1, 26-18-16, dk. Gilliam Synd.'s Sellington 1, 27-21-14, sd 2732 ft; Taylor 1, 17-21-14, set 10-in 160 ft. Gulf's Ferry Lake 256, 28-20-16, set 10-in 145 ft; Ferry Lake 257, 28-20-16, rig. Haynes Bro.'s La. L. S. & T. 1, 8-19-16, sd 2712 ft. N. M. Handcock's Hampton 1, 15-21-15, set 10-in 100 ft. Lewis Oil Corp.'s Caddo M. L. Co. 8, 24-22-15, sd 1824 ft; Caddo M. L. Co. 9, 24-22-15, set 10-in 47 ft. Luby Oil Co.'s Caddo L. B. 14, 23-22-15, set 6-in 988 ft. Magnolia's Caddo L. B. 2, 8-20-15, dr 2900 ft; Dillon 16, 24-21-15, perforated 6-in 1580 ft; Dillon 18, 24-21-15, dk; Dillion 19, 24-21-15, dr 105 ft; Doan-Thigpen 17, 6-20-15, set 8⅝-in 95 ft; Planters 4, 7-21-14, dr 1950 ft. H. H. Morris' Fields 1, 24-22-15, set 10-in 40 ft. Ohio's Murray 3, 28-21-15, set 12½-in 170 ft. Owl Oil Co.'s Wilburn 2, 4-17-16, sd 2543 ft; Wilburn 3, 4-17-16, lcn; Bell 1, 5-17-16, rig. Shreveport Oil Corp.'s State 1, 28-21-16, dk; State 2, 27-21-15, set 10-in 63 ft. Standard's Trosper 1, 34-18-16, dr 2250 ft; Stiles 77, 33-21-16, set 6-in 1788 ft; Stiles 178, 33-21-16, dk. Standish Oil Co.'s Allen 11, 23-22-15, rig. Texas Co.'s C. M. L. 47, 23-21-15, dr 3588 ft; Curtis 6, 14-20-16, set 10-in 60 ft; Glassell 2, 14-20-15, fsh 2960 ft; Hardy 1, 10-20-16, set 6-inch 2275 ft; Herndon 5, 14-21-15, dr 3443 ft; Hicks & Payne 5, 21-21-15, dr 2784 ft; Harrell 55, 4-21-16, sd 2408 ft; Herndon 6, 22-21-15, dk. Thomason et al's Muslow Fee 7, 31-21-15, set 4½-in 2160 ft. Victor Wenzel's Thomas 3, 15-20-15, rig; Thomas 4, 15-20-15, dk. Woodley Pet. Co.'s Muslow 3, 32-21-15, wosr 1691 ft.

CALDWELL PARISH — Humble's L. C. Lbr. Co. A-4, 12-11-2e, set 10-inch 68 ft. Victor Wenzel's Shaw 1, 22-14-4e, sd 1530 ft.

CATAHOULA PARISH — S. D. Hunter's Tensas Delta 2, 21-9n-7e, rig. Lochnager O. & G. Co.'s Beazley 1, 26-9n-6e, sd 3093 ft.

CLAIBORNE PARISH — Brown et al's Beard 1, 28-19-5, sd 2500 ft. Magnolia's Lee 1, 16-22-8, dr 2878 ft. Mitchell et al's Wilburn 1, 23-19-7, sd 2220 ft.

DE SOTO PARISH—Craige et al's Riggs 1, 27-15-13, dr 3006 ft. Dixie's Jenkins 1, 9-12-11, dr 5262 ft. Helm & Jarman's Joyner 1, 28-12-11, fsh 3005 ft. Magnolia's Mason 1, 28-12-11, dr 2715 ft.

FRANKLIN PARISH — Exploration Co.'s Moore 1, 12-11-6e, sd 2120 ft. Harrell & Hall's Duncan 1, 20-13-7e, sd 2057 ft. Robinson & Long's Baker 1, 3-15-7e, sd 1443 ft.

GRANT PARISH—Gulf's Swope B-1, 1-9-1w, dk. Humble's L. & A. A-11, 20-9-2e, dk; L. & A. A-14, 20-9-2e, lcn. Holmes et al's Holmes 1, 17-9-1e, dk; Holmes A-1, 17-9-1e, dk; Fee 2, 17-9-1e, dk. Paulette et al's Holmes 1, 17-9-1e, dr 1600 ft. Rue et al's Elias & Williams 1, 10-7-4w, set 10-in 120 ft.

JACKSON PARISH—Grigsby et al's Adams 1, 22-17-4w, sd 2900 ft. Houseman et al's Norton 1, 34-15-3w, sd 400 ft. Ferguson Trusts Martin 1, 3-15-1e, dr 3475 ft. Louisiana Pet. Co.'s Davis Lbr. Co. 3, sd 2301 ft.

LA SALLE PARISH—Modisette Drlg. Co.'s Urania 4, 7-10-2e, dk. Tunica Pet. Co.'s L. & A. 23, 9-7-2e, tested small show of oil at 770 ft; L. & A. 25, 8-8-3e, rig. Wingfield et al's Urania 6, 2-9-1e, set 10-inch 66 ft.

MOREHOUSE PARISH — Cons. Carbon Co.'s White 1, 16-20-4e, set 12½-in 181 ft. Louisiana Dev. Co.'s Fee 38, 21-20-5e, dk. Ouachita Nat. Gas Co.'s Allison 8, 7-20-5e, set 6-in 2171 ft. Standard's Interstate 4, 9-19-8e, set 8-in 128 ft.

NATCHITOCHES PARISH—Lawson et al's Clark & Morse Lbr. Co. 1, 23-5-6w, sd 2528 ft. Ohio Oil Co.'s L. & A. 1, 23-13-6w, dr 2856 ft. Reidheimer et al's Wafer 1, 3-11-8, set 10-in 116 ft. Three League Oil Co.'s Long 1, 34-10-8w, rig. Tunica Pet. Co.'s L. & A. 24, 35-13-6w, set 10-in 65 ft. Wenzel et al's Brown 1, 38-10-7w, dk.

OUACHITA PARISH — Easterling et al's Sicard 1, 18-18-4e, dr 2070 ft. La. Dev. Co.'s Fee 37, 10-19-5e, dr 2138 ft; Fee 39, 1-19-4e, dk. Natural Gas Prod. Co.'s Burton 1, 26-20-4e, set 6-inch 2126 ft. Ouchita Nat. G. & O. Co.'s D'Arbonne 2, 25-19-2e, sd 2780 ft. Peerless Co.'s Moore 3, 29-20-4e, lcn. Southern Carbon Co.'s Ladell 5, 2-19-4e, set 6-in 2118 ft.

RAPIDES PARISH—Hincey et al's Barrow 1, 29-5-2e, sd 2800 ft. Minnesota Oil Corp.'s Wattermack 1, 7-5-3w, sd 1718 ft. Libuse Oil Co.'s Voda 1, 14-4-1e sd 2550 ft.

RED RIVER PARISH — Alden Oil Co.'s Powell 1, 13-11-10, sd 2301 ft. Amerada's Long Bell 1, 5-13-9, set 10-in 148 ft. Gulf's Robinson 37, 25-13-11, set 6⅝-in 2485 ft. Magnolia Continental Pelly 24, 6-12-10, dr 2143 ft. Phillips Pet. Co.'s Long Bell 1, 16-12-8, dr 1800 ft. Texas Co.'s Brinkerhoff B-25, 30-13-10, dr 2518 ft.

RICHLAND PARISH — Gulf's Rhymes 2, 5-16-6e, set 15½-in 128 ft; Wayne L. & T. Co. 1, 36-17-5e, set 6⅝-in 2302 ft; Marshfield S. & T. Co. 1, 30-17-6e, set 6-inch 2278 ft; Seibert 1, 35-17-5e, dk; Seibert 2, 11-16-5e dk. S. D. Hunter's McCoy 1, 29-16-5e, set 6⅝-in 2314 ft; Seibert 1, 1-16-5e, sdtr 2349 ft. Louisiana Pet. Co.'s Binion 1, 22-17-6e, bailing for test 2474 ft. Oliver et al's Hatch 1 2-15-5e, sd 2316 ft. Ruston Drlg. Co.'s Earle 1, 5-16-6e, dk; O'Neil 1, 35-17-6e, dr 2443 ft. Stovall Drlg. Co.'s Mitchell 1, 20-17-6e, set 8-inch 915 ft. Standard Drlg. Co.'s Delta H L. Co. 1, 22-6-7e, set 12½-in 160 ft. Tex-La Carbon Co.'s Broughton 1, 1-15-6e, dr 2069 ft.

SABINE PARISH — Arkansas F. O. Co.'s Logan 2, 28-10-12, rig; Logn 3, 33-10-12, set 6⅝-in 3100 ft; Logan 4, 33-10-12, dr 2915 ft; Logan 5, 28-10-12, dr 3001 ft. Beckman & Freeman's Logan 1, 28-10-12, dr 75 ft. Emlet et al's Bowman Hicks 5, 11-7-14, sd 4070 ft; Bowman Hicks 7, 11-7-14, r to make Hilliburton test 2623 ft; Sabine Lbr. Co. 1, 8-7-1e, dk. Greer & Moffitt's Moore 1, 5-9-12, dr 1740 ft. Lewis Clark Pet. Co.'s Wyatt 1, 23-5-12, sd 3140 ft. Magnolia's L. L. L. L. Co. 1, 11-6-11, dr 3035 ft. Ohio's Cook 1, 34-10-12, dr 2665 ft.

UNION PARISH—Camette et al's Tugwell 1, 21-22-1e, sd 1365 ft. Clark Creek Pet. Co.'s Frost-Johnson 3, 9-23-1e, sd 2307 ft. Interstate Co.'s Parks 1, 23-20-3e, dk. Natural Gas Prod. Co.'s Trimble 1, 7-20-4e, trying to set liner 2120 ft. Rhodes et al's Futch 1, 28-23-2ew, sd 1907 ft. United Carbon Co.'s Raburn 1, 28-21-4e, dr 2110 ft. Ruston Drlg. Co.'s Gulley 1, 16-20-4e, set 8-inch 900 ft.

WEBSTER PARISH—Davis et al's Lee 1, 22-22-9, sd 2834 ft. Louisiana O. R. Corp.'s Davis 1, 23-21-10, dr 4154 ft. Magnolia's Robbins A-2, 21-21-10, dr 2329 ft; Robbins A-4, 21-21-10, set 6⅝-inch 2557 ft. Northwest La. Gas Co.'s Coyle 1, 21-21-10, set 10-in 320 ft. Ohio's Bank of Cotton Valley 2, 22-21-10, dk; Bank of Cotton Valley 4, 22-21-10, swedging 6-in 2672 ft. Woodley Pet. Co.'s Cox 1, 22-21-10, set 6⅝-in 4233 ft.

WINN PARISH—Cherokee Pet. Co.'s Albritton 1, 27-10-1e, sd 900 ft. Dodge et al's Tremont 1, 35-13-3w, sd 1042 ft. Greer et al's Bodcaw Lbr. Co. 1, 9-11-4w, dr 3110 ft. Humble's L. & A. A-19, 31-10-2w, dr 1500 ft. Liggett et al's Albritton 1, 27-10-1e, dk. J. C. Long's Milam 1, 26-13-3w, sd 1450 ft. Ohio's Edenborne 2, 4-12-1w, dr 4340 ft. Rowe et al's Urania 1, 26-11-1e, dk. F. A. Schuman's Albritton 1, 27-10-1e, sd 1518 ft. Standard's Tremont 1, 1-12-2w, dr 3527 ft.

Louisiana Coastal Wildcats

ASSUMPTION PARISH—Union Sul. Co.'s Parish School Board 1, r 949 ft, rock.

CALCASIEU PARISH — Union Sul. Co.'s Fee 720, Sulphur dome, dr 3568 ft, sand. Border Research Corp.'s Calcasieu Lake 1, sd. Gulf Prod. Co.'s Lutcher-Moore 5, Stark dome, dr 2689 ft, gumbo and lime; Industrial Lbr. Co. 1, Stark dome, lcn.

CAMERON PARISH — Yount-Lee's Gulf Land 10, dr 2133 ft, gumbo and bldrs; School land 6, dr 4422 ft, rock; State land 4, dk. Border Research Corp.'s Mallard Bay 1, no report; Sabine Lake 1, sd. Union Sul. Co.'s Gulf Land 2, Hackberry Island, lcn; Gulf Land 3, Hackberry Island, rigging up; R. Vincent 2, Hackberry Island, rigging up; Little 1, 29-12s-10w, dr 1799 ft rock.

EVANGELINE PARISH— Texas' Guillory 2, Pine Prairie, dr 3935 ft, gumbo.

JEFF DAVIS PARISH — Elton Oil Co.'s Buller 1, sd 2065 ft. Estropal Oil Co.'s Duex 2, dr 2635 ft, gumbo. Fred Getty's Lacasine Irri. dr 3312 ft, shale (corrected depth).

IBERIA PARISH — Gulf's Broussard 1, Eagle Point, no report; State Z-1, Eagle Point, no report; State Z-2, Eagle Point, lcn. Calcasieu Oil Co.'s Schwing A-1, Eagle Point, dr 2158 ft, sand. Border Research Corp.'s Vermillion Bay 1, set 40 ft surface cas, sd.

ST. LANDRY PARISH—Bristol O. & G. Co.'s Breaux 1, sd 3015 ft. Terre Bonne Gas Co.'s Whitman 1, sd 2650 ft.

ST. MARTIN'S PARISH—Rycade's Atchafalaya 1, dr 3670 ft, shale. Ohio Oil Co.'s Martin 1, sd, high water.

ST. MARY PARISH — Border Research Corp.'s Grand Lake 1, sd 4200 ft; West Cote Blanche 1, rigging up.

Texas Gulf Coast Wildcats

COMPLETION

Company, Well and Location	Initial Production Bbls.	Depth
Jefferson County—		
J. T. Miller Dr. Co., Edwards 1...	*	3810

DRILLING REPORT

AUSTIN COUNTY—Humble's Austin College 2, Raccoon Bend, dr 1250 ft, gumbo; 3, Raccoon Bend, oil sand 937 ft; Washington 1, Raccoon Bend, sd; Thompson 2, Raccoon Bend, flowed 1,000,000 ft dry gas 915 ft, plugging off gas; Reese 2, Raccoon Bend, testing oil sand 1001 ft; Bellville School 1, Raccoon Bend, dr 1134 ft, sand and shale. R. E. Graves et al's Cleveland 1, Hickory Mound, stuck cas 500 ft, td 1000 ft. Green, Mewis & Morgan's Mewis 1, 3 mi e Bellville, dk.

BRAZORIA COUNTY — Staley et al's Glover 1, Anchor, dr 275 ft, gumbo. Associated's Seaburn 1, Stratton Ridge, dr 2128 ft, rock. Pure-Humphrey's Armstrong 1, Stratton Ridge, dr 1725 ft, gumbo. Gulf's Perry 2, Stratton Ridge, rigging up. Roxana's Pabst 2-A, Clemens Dome, dr 4114 ft, gumbo; Clemens 4, Clemens dome, dr 3717 ft, shale and sand; Allen 3, Allen dome, fsh screen 5356 ft; Allen Bernard 1, Allen dome, dr 4538 ft, sandy lime; Reese 2, Allen dome, dr 1243 ft, sand and bldrs.

FORT BEND COUNTY—Gulf's Trone 2, Long Point, rigging up; Beard 4, Long Point, dr 2130 ft, gumbo and lime; Davis 24, Long Point, dr 845 ft, sand rock; Wolff 1, Long Point, dr 825 ft, lime rock. Sun's Farmer 2, Boling, no report. Texas' Farmer 2, Boling, dr 3230 ft, gumbo and lime.

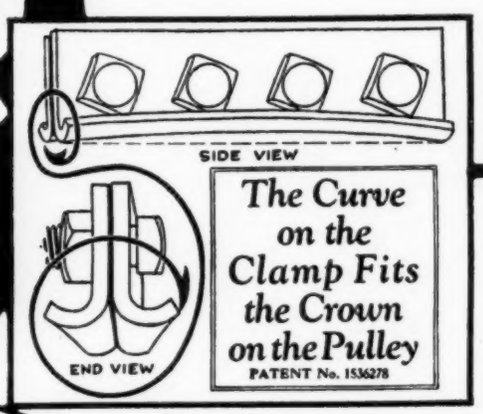
GOLIAD COUNTY—Houston Oil Co.'s Pettus 3, 10 mi w Goliad, dr 1799 ft, water sand; Parks 2, 8 mi e Goliad, dr 3111 ft, gumbo and lime.

HARDIN COUNTY — Texas' Le Jarza 3, Batson, dr 4390 ft, hard shale.

HARRIS COUNTY—P. S. Griffth's Fee 2, 12 mi n Houston, dr 3015 ft, gumbo and shale. Atlantic-Simms' Burt-Griffith 1, 3 mi n Humble, dr 2190 ft, gumbo and sand. Juanita Oil Co.'s Kitsman 1, 3 mi n Cypress, dk. Humble's Warren 1, Hockley, lcn.

JEFFERSON COUNTY—Rio Bravo's T. & N. O. 101, ½ mi n Spindle Top, fsh 3000 ft, hard lime. J. O. Davis et al's Gladys 1, ½ mi w Spindle Top, dr 3500 ft, sand and shale. Hines Bros.' Roberts 2, ½ mi e Spindle Top,

FEDERAL BELT CLAMP



It's not the USE —it's the ABUSE of your belt that costs you money!

The FEDERAL is the ONLY clamp with "The curve on clamp to fit the crown on the pulley." What this means to the life of your belt the experienced engineer knows—The moulded rubber filler holds the belt firmly on the outside clamp and forms an uninterrupted curved surface fitting snugly against the pulley.

The old straight bar belt clamp ABUSES your belt and SHORTENS its life, while the FEDERAL prevents bootlegging and ADDS to the life of your belt.

There is only one original and genuine FEDERAL—beware of inferior products.

Manufactured By

FEDERAL SUPPLY CO.

FORT WORTH——TEXAS——MEXIA

At Your Supply Store

National Supply Companies
Continental Supply Company
Oil Well Supply Company
International Supply Company
The Republic Supply Company
Bridgeport Machine Company
Jarecki Mfg. Company
Petroleum Supply Company
Bovaird Supply Company
Dunnigan Tool & Supply Co.
Bradford Supply Company
Producer's Supply & Tool Co.
Hercules Supply Company
Decker Tool & Supply Co.
Wagner Supply Company
El Dorado Machinery & Foundry Company
California Republic Supply Co.
Reagan Sales Company
Petroleum Equipment Company
United Oil Well Supply Co.
Great Northern Tool & Supply Company of Montana

dr 2586 ft, gumbo and shale. J. T. Miller Dr. Co.'s Edwards 1, Nederland, abn 3810 ft, gumbo and lime. Deep Test Oil Co.'s McFaddin 1, 4 mi ne Beaumont, sd 1450 ft. Edmund Tstee's Port Acres 1, 2 mi n Port Arthur, dk. Gulf's Bordages 2, Fannett, dr 4951 ft, gumbo; Bordages 3, Fannett, dr 3009 ft, rock; Thomas 10, Fannett, dr 795 ft, sand rock.

LIBERTY COUNTY — Union Sul. Co.'s Kyle 5, Moss Bluff, trying to make water well. Barlow et al's Minchcliffe 1, Excelsior, dk.

MATAGORDA COUNTY—Gulf's Craig 8, Hawkinsville, dr 4120 ft, sandy shale; Parkinson 2, Hawkinsville, dr 1164 ft, cap; Parkinson 3, Hawkinsville, rigging up; Sanborn 4, Hawkinsville, lcn. Sheppard Mott Oil Co.'s Murphy 1, Hawkinsville, wtg on orders 3114 ft.

MONTGOMERY COUNTY—Brain et al's Fitch 1, 3 mi e of Spring, dr 2000 ft, sand and bldrs. Beard et al's Beard 1, 15 mi e of Conroe, lcn.

WALKER COUNTY—N. Thompson et al's Thompson Lbr. Co. 1, sd 1502 ft, shale.

WHARTON COUNTY — Texas' Felder 3, Boling, dr 4090 ft, shale.

WASHINGTON COUNTY—C. A. DeWare's A. C. Lehmann 1, Brenham, sd 2365 ft; Schurenburg 1, Brenham, sd 308 ft. Pratt-Hewitt Oil Co.'s Konieczny 1, Brenham, dr 200 ft, gumbo.

San Antonio Wildcats

BEXAR COUNTY—McClanahan's Sodrok 3, dr.

CALDWELL COUNTY — Fred Adams et al's Ellison 1, Richard sur, spd. United North & South Oil Co.'s Kelly 1, dr; Tiller 1, dr.

DUVAL COUNTY — Associated Oil Co.'s Sutherland 1, dr. Barkley, Meadows, Morgan's Harper 3, testing at 1718 ft. Cintex Pet. Co.'s 2, sd at 2032 ft. Humble's Singer 11, dr; Walsh 7, dr; Schallert 5, dr; Koehler 5, dr. Magnolia's Spear 1, dr; Benavides 1, dr 700 ft. Geo. Marshall's 1, sec 458, testing. Maurer & Duggan's Hoffman 1, dr. National Oil Co.'s Ball 1, dr. G. B. Pickett's 1, sur 230, dr. Schlesinger, O'Bryne & Schoolfield's 1, section 76, bailing.

GONZALES COUNTY — Martin Oil Co.'s Preston 1, dr. R. J. Kerchival et al's Billings 2, spudded.

KLEBERG COUNTY — Humble's Kleberg Trustee 3, dr; Kilvin 1, lcn; Flato 1, dr. Texas Co.'s 1, dr. Witherspoon Oil Co.'s 1, dr.

MEDINA COUNTY—Alamo Drilling Co.'s Kenedy 1, dr. Pat Armstrong's Lacey 1, dr. Arnett Oil Co.'s Nixon 4, dr; Nixon 5, dr. Carl Switzer's Zerr 1, dr. California-Medina Co.'s Rothe 1, dr. Fennel et al's 1, sur 115, dr. Gisbon & Walsh's Ottem 1, dr. C. E. Lange's Adams 2, set cas. Medina Synd.'s Mitchell 2, dr. J. A. Swaye's Oeffinger 1, dr. Western Gas & Fuel Co.'s Adams 5, dr. F. L. Williams' Fohn 2, spd in. Suladie Drilling Co.'s blk 49, dr. Wolcott Pet. Co.'s de la Garza 1, sur 606, dr.

ZAPATA COUNTY—Buffalo-Erie's F. Martinez 2, skidded dk over for No. 3. Charco Rendondo Oil Co.'s Garcia 65 and 66, dr. Hill & Associates' Villa Grant 1, dr. O. W. Killam's Lange 1, dr. Duke Langford's Charco Rendondo Grant 1, dr; Martinez 3, lcn. Howard Staggs et al's Hinnants 1, dr. Mission Oil Co.'s Slator 1, dr below 1300 ft. Magnolia's Jennings 5, lcn; Cuellar 4, lcn. Texas Co.'s Jennings 4, dr deeper.

West Texas Wildcats

COMPLETIONS

Company, Well and Location	Initial Production Bbls.	Depth
Borden County—		
Julian Pet. Corp. & R. R. Penn A. L. Long 1	*	3860
Coke County—		
Lipan Oil Co., E. C. Rawlings 1	†	2736
Crane County—		
Marland & F. P. Zoch, Hughes 2-B	*	2425
Hughes 4-C	*	2460
Fisher County—		
Shamrock Pet. Co., Wheeler 1	*	3185
Reeves County—		
World Oil Co., Biggs-Holder 1	†	1735
Taylor County—		
Ranger O. & R. Co., Cox 1	*	2413

DRILLING REPORT

ANDREWS COUNTY — Carter-Zweifel's Cowden 1, dr 1135 ft. J. S. Cosden et al's Ratliff-Bedford 1, lcn. Calvin-Belt et al's Ratliff-Bedford 1, lcn. Deep Rock Oil Co.'s W. J. Harris 1, lcn. Maer-Staniforth et al's W. S. Taylor-Meador 1, ur 1000 ft. C. B. McKinnon et al's J. S. Means 1, machine.

BORDEN COUNTY — Stivers & Guthrie's Snodgrass 1, lcn.

COKE COUNTY—Lipan Oil Co.'s S. M. Conner 1, spd and sd.

CONCHO COUNTY—Harry Adams et al's Price 1, lcn. Arkansas Fuel Oil Co.'s Hartgrove 1, dr 1785 ft. Associated Pet. Co.'s Sam Waring 1, elevation 2085 ft, fsh 2300 ft. Gene Mays et al's Hartgrove 1, sd making gas and water 1550 ft. Exploration Co.'s Wilson-Hartgrove 1, elevation 1618 ft, sd 1675 ft. J. R. Lewis & Swoveland's Plants 1, lcn. Marland's Sansom 1, sd 165 ft. Mullens-Davis et al's Martin 1, dr 2165 ft.

CRANE COUNTY—Church & Fields' Univ. 2, rig. Church & B. F. Weekly's University 1, top salt 1070 ft, dr 2110 ft. Carl Cromwell & C. A. Jones' University 1, top salt 1015 ft, dr 1780 ft. W. E. Duffy et al's Cowden 1, sd 3250 ft. Eastland Oil Co. & Collett-O'Keefe's University 2, dr 685 ft; University 3, 5, 6 and 7, lcns; University 4, top salt 1041 ft, dr 2500 ft; University 8, top salt 1115 ft, set 8¼ cas 2505 ft. Gulf's Crier-McElroy 6, rig; Crier-McElroy 3-A, elevation 2576 ft, top salt 968 ft, testing oil pay 2668-73 ft; Crier-McElroy 4-A, rig; J. T. McElroy 6, elevation 2629 ft, top salt 1035 ft, top lime 2611 ft, flowed 685 barrels oil 2778 ft; McElroy 8 and 9, rigs; McElroy 1-B, top salt 1220 ft, dr 1385 ft; University 3, top salt 1160 ft, sd 2050 ft; University 4, top salt 1195 ft, dr 2415 ft; University 5, dr 1155 ft; University 6, dr 1440 ft; University 7, dr 1140 ft; Waddell 1-A, sd 753 ft. Humble's University 2, elevation 2570 ft, top sale 1100 ft, dr 2435 ft; University 3, top salt 1070 ft, dr 1745 ft; University 4, elevation 2576 ft, top salt 1100 ft, dr 2215 ft; University 5, dr 910 ft; University 6, dr 850 ft; University 7, dr 725 ft; University 8, dr 300 ft. Independent O. & G. Co.'s University 1, elevation 2555 ft, fsh 925 ft. Magnolia's University-Hardwick 2, top salt 1065 ft, dr 2010 ft; University-Hardwick 3, 5, 6, 7 and 8, rigs; University-Hardwick 4, dr 410 ft; University-Lassiter 2, elevation 2606 ft, top salt 1175 ft, dr 2700 ft; University-Lassiter 3, rig; University-O'Keefe 5, elevation 2592 ft, top salt 1150 ft, dr 2950 ft; University-O'Keefe 6, 8 and 9, rigs; University-O'Keefe 7, dr 385 ft. Marland & Zoch's Cowden 1, top salt 995 ft, dr 1665 ft. McMan O. & G. Co.'s Hughes 2, elevation 2597 ft, top salt 740 ft, dr 2105 ft. Prairie O. & G. Co.'s University 6-A, elevation 2590 ft, top salt 1140 ft, dr with hfo 2965-3010 ft; University-Lassiter 1, dr 895 ft; University 1-B, dr 3905 ft. Simon & Cromwell's Brookfield 1, elevation 2317 ft, top salt 680 ft, dr 3265 ft. Simms & Atlantic Oil Prod. Co.'s University 3-A, elevation 2567 ft, top salt 1075 ft, set cas 2803 ft; University 4-A, top salt 1110 ft, dr 2200 ft; University 5-A, dr 680 ft; University 6-A, dr 100 ft; University 7-A, dr 340 ft; University 1-B, elevation 2588 ft, top salt 1100 ft, testing with hfo 2952-97 ft; University 1-C, elevation 2583 ft, top salt 1115 ft, dr 2210 ft; University 2-C, fsh 520 ft; University 3-C and 4-C, lcns; University 1-D, dr 720 ft. The Texas Co.'s University 1, rig. Tidal Oil Co. & Turman-Maxwell's University 2-F, top salt 1035 ft, dr 1810 ft; University 3-F, top salt 1080 ft, dr 1560 ft; University 4-F, dr 665 ft; University 1-H, dr 110 ft; University 2-H, rig. Zweifel & Hofmeier's Cowden 1, dr 3105 ft.

CROCKETT COUNTY — V. T. Bolin & Co.'s P. O. Coates 1, dr 845 ft. Cumberland O. & G. Co. et al's Couch 1, dr 2700 ft. W. W. Donnelly & J. D. Young's Pierce 1, dr 580 ft. Geo. A. Henshaw & Co.'s University 1, elevation 2297 ft, top salt 450 ft, sr 617 ft. J. K. Hughes Dev. Co.'s Powell 2-B, fsh 2535 ft. Magnolia's Shannon 2, elevation 2670 ft, top salt 925 ft, top lime 2270 ft, testing small show oil 2985 ft. World Oil Co.'s Schneeman 1, top salt 1035 ft, top lime 2280 ft, sulphur water 2490 ft. P. H. Williams et al's Powell 1, rig. J. D. Young & Carl Cromwell's University 1, fsh 1745 ft.

CROSBY COUNTY—El Capitan Oil Co.'s Slaton-Robertson 1, elevation 2854 ft, top salt 1270 ft, dr 1855 ft.

CULBERSON COUNTY—Jas. H. Gardner et al's Radford-State 1, sd 295 ft.

JEFF DAVIS COUNTY — Humble's C. Flores 1, lcn. J. K. Hughes Dev. Co.'s J. Z. Means 1, sd 1700 ft; Means 2, lcn.

ECTOR COUNTY — J. S. Cosden et al's Connell 2-A, rig; Connell 3-A, lcn.

FISHER COUNTY—Barbour Oil Co.'s W. A. Cross 1-A, dr 875 ft. California Co.'s Anderson 1, co 3060 ft; Magenheimer 1, elevation 2004 ft, dr 3216 ft. Hucony Gas Co.'s Langford 1, show oil 2350 ft, dr 2480 ft. Ideal Oil Co.'s Jameson 1, dk. Marland's Hodges-Rochelle 1, dr hfw 3245 ft. Marland & Texon Oil & L. Co.'s McCall 1, lcn. Fred Phillips et al's C. M. Webb 1, elevation 1811 ft, ur 2660 ft. R. W. Rainey et al's Marberry 2, sd 2725 ft. Sinclair's J. A. Denise 1, rig. Stearnes & Streeter's W. A. Howe 1, sd 2450 ft. F. P. Zoch & McCamey's Clayton 1, elevation 2135 ft, show gas 3128-32 ft, show oil and dr 3155 ft; Lanius 1, dr 3055 ft.

GARZA COUNTY — Emerald Oil Co.'s Boren 1, dr 1055 ft. Pandem Oil Corp.'s Justice 1, rig.

GLASSCOCK COUNTY—Green et al's Oxshear 1, rig. Marland & Texon Oil & Land Co.'s Settles 1, elevation 2646 ft, pumped 100 bbls oil 1230-63 ft. J. S. Merriwether et al's McDowell 1, lcn. R. R. Penn et al's Edwards 1, materials. Plateau Oil Co. et al's L. S. Bell 1, top lime 2930 ft, dr 3065 ft.

TOM GREEN COUNTY—Marland's Llano County Fee 1, dr 585 ft. Fitzgerald & Taliaferro's Bennett 1, lcn.

HOCKLEY COUNTY—El Capitan Oil Co.'s Ellwood 1-A, fsh 580 ft.

HOWARD COUNTY—Bowers et al's Chester Jones 1, spd and sd. Bristow & Merrick's A. J. Hooks 1, dr 1615 ft; Hooks 2, rig. Carey et al's Chalk 1, sd 250 ft. Comet Pet. Co.'s H. R. Clay 1, testing oil sand 1818 ft. Dixie Oil Co."s Clay 1, dr 1200 ft. W. W. Donnelly & Mann's Martin 1, rotary rig. Francis et al's Furrh 1, lcn. Gulf's Chalk 2, elevation 2657 ft, flowing 35 bbls through tubing 1775 ft. L. C. Harrison et al's Roberts 1, spd and sd. Humble's Douthitt 3, rig. Lockhart & Co.'s Chalk 3, dr 810 ft; Chalk 2-A, dr 1100 ft. Magnolia's Hyman-Chalk 3, lcn; Mary-Chalk 4, dr 865 ft; Kelly-Chalk 1, dr 545 ft; Kelly-Chalk 2, lcn; G. O. Chalk 5 and 6, lcns; Owen-Chalk 5-A, lcn; Owen-Chalk 7-A, dr 855 ft; Owen-Chalk 8-A, dr 995 ft; Sloan-Chalk 1, dr 1090 ft; Sarah-Hyman 2, swab 50 bbls oil 1600-25 ft; Sarah-Hyman 3, lcn; Dora Roberts 1, lcn. Marland's Brite 1, elevation 2568 ft, top salt 1285 ft, dr hfw 3430 ft; Chalk 9, lcn; Chalk 10, dr 1545 ft; Chalk 5-A, dr 1470 ft; Chalk 6-A, dr 1170 ft; Chalk 7-A, dr 1050 ft; Chalk 8-A, dk; Chalk 1-C, elevation 2424 ft, co 1780 ft; Chalk 1-D, swab 40 bbls 12 hours after shot 1702-14 ft; Chalk 1-E, flowed 189 bbls 10 hours 1675-79 ft; H. R. Clay 2, cem cas 1700 ft; Clay 3, dr 1540 ft; Clay 4, rig; Clay 5, dr 1320 ft; Clay 3-A, dr 1360 ft; Clay 4-A, dr 540 ft; Clay 5-A, rig; Clay 1-C, sd 1650 ft; Clay 1-D, cem cas 1670 ft; Harding 1, top salt 1146 ft, dr 1300 ft. Mid-West Exploration Co.'s Clay 1, rig. Reeves-Apperman's Clay 2, dr 915 ft. F. P. Zoch & Marland's Guitar Ranch 1, rig.

IRION COUNTY — Whitmire-Cashdollar's Bird-Roberts 1, elevation 2065 ft, sd 945 ft; Abe Meyer 1, elevation 2050 ft, dr 2165 ft.

JONES COUNTY — Atlantic & Landreth's Howell 2, fsh 1095 ft. Bateman & Campbell's Southard 1, sd 1790 ft; Woodson 1, lcn. Gault Brown et al's Mrs. Zips 1, materials. E. P. Campbell et al's Herndon 1, sd 1860 ft. Cole-Hart et al's Cranston 1, ur 2735 ft. Consolidated Oil Co.'s Armand-Taylor 1, dr 1045 ft. Garland & Diamond's Glynn 1, lcn. Hurley Oil Co.'s (Gibson-Johnson) Sears 2, sd 1335 ft; Largent 1, ur 8¼ cas 2390 ft. Gillette & Hickey et al's S. W. King 1, ur cas 2070 ft; M. E. Young 1, sd 1200 ft. Grisham-Hunter & Wildman Pet. Corp.'s Burchfield 1, elevation 1820 ft, sd 2960 ft; Williams 1, show oil 2620-40 ft, fsh 2640 ft. Hutson-Weaver et al's Smith 1, fsh 505 ft. Kirk & Brewer's Milsap 1, lcn. Marland's Larsen 1, dr 1885 ft. Marsten Oil Co.'s Howell 1, fsh 2197 ft; Swann 1, rig. Mid-West Exploration Co.'s Thornton 3, dr 2170 ft; Thornton 4, co 2270 ft. Mid-Continent Pet. Corp.'s H. Evans 1, sd 1875 ft. Vic H. Martin et al's Culberson 1, dr 3120 ft. McLester et al's Will Myett 1, dr 1815 ft. Muse-Robertson et al's Manly 1, dr 2035 ft. Stebbins O. & G. Co.'s J. M. Higgs 1, dr 970

(Continued on page 106)

American Made Bull Plugs

Bull Plugs shipped to Bayway Refinery, Bayway, N. J.

No order too small or too large—Sizes ¼" to 20".

We furnish them for all parts of the United States and to foreign countries.

Manufactured by the

American Manufucturing Co. of Texas

Weatherford, Texas

OIL FIELD SUPPLIES—Specializing in Swaged Nipples, Bull Plugs and Pumping Outfits

Say you saw it in The OIL WEEKLY

PERMITS GRANTED FOR NEW WELLS

Weekly Comparison of New Wells

Following is a condensed table giving a comparison of permits or locations made for new wells during the past year in Kansas, Oklahoma, Arkansas, Louisiana, Texas, California and the Mountain States:

	Week Ending Mar. 18	Previous Week	Total This Month	Total This Year	This Week Last Year	This Month 1926	Total Same Date 1926	Year Total 1926
Arkansas	12	12	42	112	31	80	318	940
California	26	33	80	313	41	94	490	1,273
Louisiana	15	20	49	110	29	116	273	1,318
Kansas	19	26	74	345	55	110	516	1,745
Oklahoma	79	74	233	1,118	114	345	1,425	5,165
Texas	240	236	759	2,772	234	648	2,805	12,158
Mountain States	25	13	46	153	...	...	...	....
Total	416	414	1,313	4,923	504	1,393	5,827	*22,599

*Mountain States omitted.

OKLAHOMA

Caddo County—Magnolia's Edward 3, sw ne nw 1-5-10; W. H. Holmes 1, c s l n½ sw 16-8-13.

Carter County—Phillips, Dougherty 3, sw se sw ne 29-2-3. Magnolia, Wilson 6, nw ne ne 21-2-2; Swartz 5, sw nw ne 26-2-3; Adams 11, se ne ne 10-2-3.

Creek County—Twin State, Anthis 1, ne sw ne 2-16-11. Future Dev. Newton 1, se ne sw ne 2-16-11; Jones 1, sw ne ne 2-16-11. Emery et al, Jacobs 8, sw nw sw ne 21-16-9. Wood's McIntosh 1, nw ne nw 13-17-11. Ireland, Barnett 2, sw nw sw 9-17-11. Wright, Tahkaney 17, c ne nw 24-17-10. Harwell, Harris 1, nw se 12-17-10. Wilcox, Lindsey 5, ne se ne 10-17-9. Verser et al, Townlot 1, lot 22, blk 25, nw se se ne 6-18-12. Valley-Osage, Townlot 1, lot 27, blk 24, sw ne se se 6-18-12. Stout, Townlot 1, lot 5, blk 16, se ne ne 6-18-12. Mayflowers et al, Townlot 1, lot 34, blk 16, c s l se ne ne 6-18-12. Love et al, Townlot 1, lot 35, blk 16, sw se ne ne 6-18-12. Calvin et al, Townlot 1, lot 33, blk 25, c w l se se ne 6-18-12. Dickey, Townlot 1, lot 30, blk 9, nw se ne ne 6-18-12. Henson et al, Street 1, c ne se ne 6-18-12. Short, Townlot 1, lot 3, blk 20, ne nw sw ne 6-18-12. Savoy et al, Townlot 1, lot 24, blk 38, sw nw nw 5-18-12. Savoy et al, Townlot 1, lot 2, blk 2, sw nw nw nw 5-18-12. Wells et al, Unallotted 2, c nw nw 10-18-11. Bartlett, King 5, se sw sw 17-18-9. Olean, McGilbra 4, se ne ne 30-14-8. Phillips, Helahcowency 1, sw se 30-15-8. Lima, Benjamin 5, nw se sw 30-15-8; Benjamin 4, ne sw sw 30-15-8. Shaffer, Morrison 4, ne sw sw 16-17-8. Magnolia, Coker 13, c n l nw nw 16-17-8.

Grady County—Gypsy, Layser 4, nw se sw 16-3-5. Stanley, Hitchcock 1, sw ne 14-3-5. Amerada, Gardenshire 1, sw se sw 5-3-5.

Jefferson County—McBybee et al, Dukes 1, sw se sw 24-4-5.

Kay County—Boucher et al, Sandsyellow 1, ne nw ne 34-25-2. Hag, Powers 1, ne nw 29-27-1. McCullough et al, Love 1, se sw sw 31-27-1. Vic, Savage 2, sw se ne 5-27-1.

Muskogee County—C. M. Bradley, Durant 1, c w l sw se 10-15-18. M. J. Metzer, McIntosh 3, c s l n½ ne ne 24-14-7. J. M. Foltz, Sharper 1, sw nw sw 27-15-17.

Okfuskee County—L. W. Umburn, Fields 2, sw nw 31-10-12. Josey, Stubblefield 1, sw 28-12-11.

Okmulgee County—H. A. Baker et al, Lewis 1, nw ne sw 24-16-13. Holmes et al, Hickory 2, c e l ne nw 5-15-12. J. L. Selby, Flint 7, c nw se 26-14-14. Phillips et al, Drew 1, ne se 12-14-14. Elm, Doyle 3, c s l ne sw 28-13-14. Simms, Doyle 20, c w l ne sw 15-13-14.

Osage County—Peters, 1, nw ne 6-21-10; 1, ne nw 6-21-10. Phillips, 1, ne se 7-24-7. Texas, 14, sw nw ne 30-25-8; 13, ne nw ne 30-25-8. Peters 7, ne nw nw 17-27-6.

Pawnee County—Industrial, Jamison 1, sw se 13-20-9. C. H. Burton 1, sw se sw 7-21-8. Gypsy, Pollock 5, nw sw sw 33-20-5. Superior, Rule 2, c n l nw ne 9-20-7. Producers Cons. Oil Co., George 11, ne sw 6-20-8.

Pittsburg County—San Bois, Cohler 1, sw nw 11-7-18.

Pontotoc County—Homaokla, Milner 1, sw nw sw 16-5-8.

Pottawatomie County—Wilcox, Pickhard 1, se sw 32-11-2.

Seminole County—Barnsdall, Bruner 1, sw se sw 2-9-5; Walker 1, sw nw sw 3-9-5. Wilcox, Cluck 5, se ne nw 4-9-6. Independent et al, Strothers 1, nw se se sw 27-9-6. Barnsdall, Johnson 1, se sw se 29-9-7. Transcontinental, Coppage 6, nw se sw 22-7-7. Sinclair, Taylor 2, se nw se 10-8-6. Magnolia, Buck 1, se ne 16-8-6. Minnehoma, Bowlags 3, se sw sw 15-8-6.

Stephens County—Westheimer et al, Martin 1, se ne se 11-1-4. Merrick et al, Dixon 1, se ne 13-1-4. H. O. Farley, Nigh 1, sw se nw 34-1-8.

Tulsa County—Smith et al, Fife 1, nw se ne 22-19-11.

Wagoner County—M. E. Johnson, Lunon 2, nw 14-16-16. W. C. Newman, Bruner 3, se nw nw 18-17-17.

KANSAS

Barton County—Haynes et al, Taul 1, owd, nw 31-18-12.

Coffey County—Balliere et al, Talbert 1, c sw sw 20-21-14. Harper et al, Peck 1, se sw sw 16-23-14.

Cowley County—Pattee et al, City of Winfield 1, lot 5, 22-32-4.

Elk County—Seeley et al, Donnall 3, c se nw 12-30-9. Love et al, McSpadden 1, c e l nw se 18-31-10.

Greenwood County—Snyder et al, Laird 1, ne se sw 3-23-10. Superior, Jones 9, ne sw sw 21-23-13. Abel et al, Freeman 1, se nw 6-24-11. Cross et al, Hoover 1, ne se 36-24-2. Mid-Kansas, Hoffman 2, se sw sw 24-25-8.

McPherson County—Johnson et al, Kuns 1, se nw 12-19-3.

Russell County—Streeter et al, Gorham 1, sw ne 7-13-15.

Sumner County—Derby, Deitz 2, nw ne nw sw 25-31-2. Roxana, Slegh 1, c e l se sw sw 25-31-2; River Bed 7, se nw nw 25-31-2; Churchill 7, c s½ se sw 25-31-2; Taton 1, c n l s½ n½ 36-31-2.

Woodson County—Superior, Dewey 15, sw ne sw 31-23-14.

MOUNTAIN STATES

WYOMING

Alevizaker & Slagle, 1, ne¼ 25-51n-93w.

NEW MEXICO

W. D. Weather et al, 1, sw 7-25n-24e. John M. Jackson, 1, sw 24-17s-30e. W. T. Gissler, 1, se 23-17s-30e. C. D. Root, 1, se 29-16s-27e. San Juan Leasehold Co., 2, ne 30-30n-15w.

COLORADO

Texas Co., 4HD, 18-6-86; 3HD, 18-6-86; 3A, se 7-6-86; 1M, se 5-6-86. Continental, 583, ne 35-18-70; 584, sw 35-18-70. Hiawatha Oil & Gas Co., 1, 16-12-100.

MONTANA

R. E. Green, 1, nw 2-7s-10w. L. R. Carroll, 1, ne 6-14-31e. Overseas Pet. Co., 1, ne 32-36n-2w. Ohio Oil Co., 3, se 32-35-1w; 8, nw 32-35-1w. California Pet. Co., 6, se 28-35-2w. West Hope Oil Co., 1, se 27-35-1w. Homestake Oil Co., 25, ne 36-35-2w. California Pet. Co., 4, ne 27-35-2w; 5, ne 28-35-2w. Tom Davis Oil Co., 2, nw 10-35-2w. Hill et al, 4, se 27-35-2w. Homestake Oil Co., 24, ne 36-35-2w.

CALIFORNIA

Belridge—Carneros Oil Co., 47, 30-28-21.

Dominguez—Union Oil, Callender 18, 33-3-13.

Huntington Beach—Sam N. Lewis, 1, 10-6-11; 2, 10-6-11. Western Drlg. & Prod. Co., 1, 10-6-11. Concord Oil Assn., 1, 10-6-11. Crudoil Co., 3, 10-6-11; 6, 10-6-11.

Inglewood—Standard, L. A. Investment 1, 52, 17-2-14.

Kern County—Zurich Oil Co., 1, 18-28-22.

Kern River—George F. Getty, Lehnhardt 1, 14-28-27.

Long Beach—Julian Pet. Corp., Peacock 1-A, 28-4-12. Miley Oil Co., Mills 6, 19-4-12.

Midway—C. C. M. O. Co., 2, 21-31-22. Honolulu Cons. Oil Co., 15, 8-32-24.

Mt. Poso—Shell Co., Vedder 4, 9-27-28.

Montbello—McGinley Oil Co., 27, 6-2-11.

Richfield—Standard, Anaheim Union 2, 34-3-9. Berry & Todd, Thurston 1, 34-3-9.

San Mateo County — Shell Co., Cowell 1, 8-6-5.

Seal Beach—J. Paul Getty, Alamitos Fee 1, 3-5-12; Alamitos Fee 2, 3-5-12; Alamitos Fee 3, 3-5-12. Mily Oil Co., Alamitos 1, 3-5-12.

Ventura—Petroleum Securities Co., Orton 3, 28-3-23; Orton 2, 28-3-23.

LOUISIANA

Acadia Parish—Marrs-McLean et al, Lake Charles, Carmouche et al 1, 42-9s-2w, 100 ft s and 50 ft w of ne cor.

Bienville Parish—S. P. Borden, Shreveport, L. & A. Oil Co. 1, 9-15n-7w, 920 ft s and 420 ft w of ne of nw.

Bossier Parish—Triangle Drilling Co. and W. D. Perritt, Shreveport, Levy Pltg. Co. 1, 13-20n-14w, 1020 ft w and 300 ft n of center.

Caddo Parish—Dixie Oil Co., Slattery Bldg., Shreveport, Dillon 86, 14-21n-15w, 1330 ft n and 765 ft w of se cor. Empire Gas & Fuel Co., Shreveport, Levee Board B-1, 36-21n-16w, 280 ft n and 867 ft w of se. Gulf Ref. Co., Shreveport, Elbert Tyson et al 13, 14-21n-15w, 1750 ft n and 2444 ft e of sw cor of sec. N.

AXELSON
OIL WELL PUMPS

The right Axelson Pump, operated with Axelson Sucker Rods, affords the best known method of increasing production and lowering production cost. Analysis and recommendations by experienced field engineers on request.

FRICK-REID
SUPPLY CO.

Tulsa, Okla., Pittsburgh, Pa.
West of the Mississippi, Store Everywhere

AXELSON MACHINE CO., *Sucker Rods, Pull Rods, Plunger Working Barrels (Pumps) etc.*—BEAUMONT IRON WORKS CO., *DREADNAUGHT Rotary Drilling Equipment, Water-Cooled Draw Works, Pumping Hoists, Traveling Blocks, etc.*—CARBIC MFG. CO., *Acetylene Gas Generators and Welding Equipment.*—DARLING VALVE & MFG. CO., *Gate and Drilling Valves, Darcova Valve Cups.*—DONOVAN BOILER WORKS, *Oil Country Boilers and Tanks.*—FRICK-REID SERVICE BELTING, *Rubber Covered and Friction Surface.*—JENSEN BROTHERS MFG. CO., *Pumping Jacks.*—NATIONAL TRANSIT PUMP & MACHINE CO., *Power and Steam Pumps.*—PACIFIC OIL COMPANY, *Hydraulic Pumping Units.*—J. P. RATIGAN, *Grips, Clamps, Beam Hangers.*—JOSEPH REID GAS ENGINE COMPANY, *Gas and Oil Engines, two and four-cycle, Band Wheel and Direct Drive Pumping Powers.*—ROSSENDALE REDDAWAY BELTING & HOSE CO., *"Camel Hair" Belting, Belt Clamps.*—WHITLOCK CORDAGE COMPANY, *Manilla Cordage, Bull Ropes and Cat Lines.*—LAPWELD AND SEAMLESS TUBULAR GOODS.

M. Hancock, Tr., 16th Floor Slattery Bldg., Shreveport, N. O. Hampton 3, 15-21n-15w, 1113 ft s and 1245 ft w of ne cor. Owl Oil Co., Greenwood, Dr. W. M. Bell 1, 5-17n-16w, 900 ft n and 1200 ft w of se cor; Wilburn 3, 4-17n-16w, 660 ft s and 660 ft e of nw cor of se.

Calcasieu Parish—Gulf Ref. Co., Houston, Industrial Lbr. Co. 1, 19-9s-12w, 100 ft s and 800 ft e of nw cor of E½ of se¼.

Caldwell Parish—Southern Crude Oil Pur. Co., Shreveport, Caldwell L. & T. Co. 8, 5-13n-5e, 570 ft n and 620 ft w of se cor of lot 3 in sec 5.

Iberia Parish—Gulf Ref. Co., Houston, Louisiana State Z-2, 26-11s-8e, 358 ft s and 95 ft e of ne cor of lot 7 in sec 26.

Natchitoches Parish—Gulf Ref. Co., Shreveport, Cobbie Hardman et al 1, 9-7n-7w, 1150 ft n and 160 ft w of se cor.

Richland Parish—Virgil Helm et al, Shreveport, Tensas Delta 1, 10-14n-5e, 660 ft n and 660 ft e of sw cor.

Winn Parish—The Ohio Oil Co., Shreveport, C. A. McCarty 1, 5-12n-1w, 330 ft n and 330 ft w of se cor of nw¼ of SE¼. H. M. Roark, El Dorado, Ark., Southern Mineral Co. 1, 19-11n-3w, approx 1770 ft n and 1770 ft e of sw cor.

ARKANSAS

Garland County—Chaywood Oil Co., Malvern Lbr. Co. 1, 17-2-17, nw se se.

Lafayette County—Arkansas Fuel Oil Co., R. H. Duty 1, 11-19-25, 260 ft n and 295 ft e of sw nw se.

Ouachita County—Wesson et al, Culp 1, 22-15-19, 150 ft w and 195 ft n of se ne nw. Imperial O. & G. Co., McClanahan 9, 6-16-15, nw lot 3 ne. W. R. Keever, Hicks 1, 27-15-16, nw nw se. Unity Pet. Co., Murphy 1, 2-16-15, sw lot 3 nw.

Union County—Lion O. & R. Co., H. Murphy 2, 9-16-15, ne ne nw. Marine Oil Co., Thompson A-2, 10-18-13, ne sw ne. O. G. Murphy, T. C. Murphy 6, 916-15, ne sw se. Natural G. & F. Corp., Bilyew 4, 9-16-15, se nw nw. Ohio Oil Co., Murphy 4, 9-16-15, center of s line e½ sw ne. Superior Oil Co., Cordell 2, 5-18-13, sw nw nw.

TEXAS

Archer County—J. W. Noland, Wichita Falls, Browning 5, blk 87, GE&L Co. sur, 6000 ft n of 2. Bass & Dillard, Wichita Falls, Perkins A4, S 28, DCSL sur, 300 ft w of 2. Simms, Dallas, Burleson 9, No. 142 R. Carson sur, 300 ft e of 8. Turbeville A19, No. 172, R. Carson sur, 300 ft w of 17. Bridwell & Heydrick Oil Co., Wichita Falls, Waggoner 1, S 3, H&TC sur. Geo. L. Pace, Wichita Falls, Miller 3, blk 19, Amer. Trib. sur, 572 ft to n and 844 ft to e line. Texas, Wichita Falls, Coody 3, blk 153, Club Ranch sur, 400 ft w of 1. Consolidated Oil Co., Wichita Falls, Andrews 1, 1824, TE&L sur, 150 ft to s and w lines. Thornton Lomax, Jr., Wichita Falls, Wilson D 1, blk 85, Amer. Trib. sur, 1508 ft to n and e lines. Maer & Staniforth, City Natl. Bank Bldg., Wichita Falls, Wilson 1, Day Land & Cattle sur, 150 ft to n and w lines. Consolidated & Burton, Wichita Falls, Helm 1, Wm. Mayer sur, 150 ft to n and w lines. F. M. Conrey, 2001 Monroe, Wichita Falls, Ford 1, S 15, blk 1, H&TC sur, 450 ft to n and w lines. Bridwell & Heydrick Oil Co., Wichita Falls, Abercrombie 15, S 2, SP Ry sur, 300 ft n of 10; 16, 1470 ft to w and 150 ft to n line. Kimmell & Dillard & Prairie, Ranger, Mangold 1, blk 20, Mangold sur, 150 ft to s and e lines. Petroleum Prod. Co., Wichita Falls, Turbeville 4C, R. Carson sur, 150 ft to n and e lines. Texas & Consolidated, Wichita Falls, Love 1, S 2, S. P. Ry sur 150 ft to s and w lines. Texas, Simms & Consolidated, Wichita Falls, Turbeville 1, blk 157, R. Carson sur, 150 ft to s and w lines. Western Oil Sales Corp. & Crenshaw, Brown Bldg., Wichita Falls, Prideaux 1, A. Rohus sur, 150 ft to s and w lines. Sun, Dallas, Green B3, J. Levins sur, 300 ft e of 1. Golding & Cochran, Wichita Falls, Prideaux 16, J. Dorsey sur, L. T. Burns, Wichita Falls, Turbeville 3E, blk 124, 1050 ft to w and 150 ft to s lines; 11D, blk 142, R. Carson sur, 1350 ft to w and 150 ft to s line; 12D, 468 ft to w and 450 ft to n line.

Angelina County — Roxana, Houston, Long Bell 4, T. Smith sur, sw cor.

Andrews County — C. B. McKennon, Fort Worth, Means 1, S 12, PCSL sur, center.

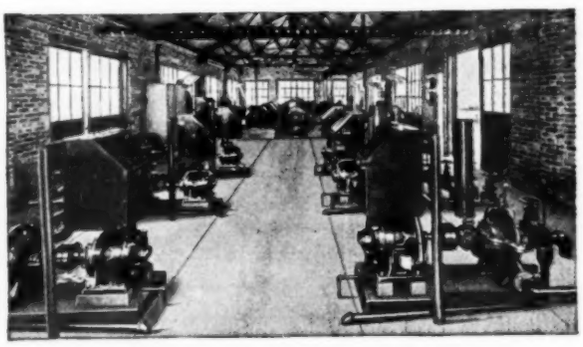
Brown County—Sinclair, Fort Worth, Fry 22, No. 622, Stubblefield sur, 1043 ft to n and 596 ft to w line; 23, 621 ft to n and 596 ft to w line; 20, 831 ft to s and 596 ft to w line; 21, 1269 ft to s and 596 ft to w line. Tidal, Fort Worth, Arledge 2, S 150, N. B. Mitchell sur, 417 ft n of 1. Inland Oil Co., Brownwood, Willis 1, S 3, SA&MG sur, 157 ft to n and 150 ft to w line. Humphreys Bros., Inc., Brownwood, Bell 1, S 18, HT&B sur, 150 ft to e and 1050 ft to n line. Orange Oil Co., Brownwood, Perry 1, Van Winkle sur, 150 ft to n and e lines. Humble, Cisco, Fry 4, G. Stubblefield sur, 414 ft w of 2; 5, 413 ft e of 1. Armstrong 9, J. Delgado sur, 1200 ft to e and 450 ft to line. Barbara Oil Co., Oklahoma City, Metts 8, S 2, Marr sur, 200 ft to n and 1350 ft to w line. Alex Wilson, Brownwood, Boysen 1, 7, E. T. Ry, sw corner. Letson & Fuller, Brownwood, McDonald 2, No. 60, J. Carrier sur, 150 ft to e and 450 ft to s line. Canyon Oil & Gas Co., Inc., Cross Plains, Elsberry 6, J. L. Williams sur, 450 ft n of No. 1. Stout & Bradstreet, Stout 8, No. 155, W. B. Smith sur, Moore & Bishop, Brownwood, Boysen 1, P. Mangle sur, 150 ft to e and 1350 ft to s line. Texas Co., Wichita Falls, Byler 2, S 43, T&NO sur, 150 ft to s and e lines. Lowe 35, No. 622, Stubblefield sur, 150 ft to s and e lines; 34, 400 ft s of 32. Barbara Oil Co., Oklahoma City, Willis 4, S 2, J. F. Vance sur, 1950 ft to w and 200 ft to s line; 5, 1350 ft to w and 200 ft to s line. Tidal Oil Co., Fort Worth, Arledge 2, S 150, N. B. Mitchell sur, n of 1; 1, 150 ft to s and e lines. Humble, Cisco, Hickman 12, T. Benson sur, 300 ft w of 10; 13, 300 ft w of 12. Wooldridge 12, S 157, E T Ry sur, 470 ft to n and 150 ft to w line. Midwest Co., Amarillo, Suttles 20, No. 140, R. Mitchell sur, 3090 ft to n and 1376 ft to w line. E. H. Ramsey, Rising Star, Henson 2, No. 147, G. Logan sur, 300 ft

Wagner Quality

Motors & Transformers for the Petroleum Industry

We make motors and transformers for almost every requirement of the Petroleum Industry, whether it be Producing, Transporting, Refining or Marketing.

Wagner Oil Field Specialists are located at Kansas City, Tulsa, Dallas, Houston, Los Angeles and San Francisco, and will be glad to give you any information you may require.



Wagner Motors in an Oklahoma Refinery

WAGNER ELECTRIC CORPORATION

6400 Plymouth Avenue, St. Louis, Mo.

Flynn-Weichsel Motor and other Polyphase Motors, Singlephase Motors and Transformers.
Official Service Representatives for Lockheed Four-Wheel Hydraulic Brakes.

The 14 big advantages Halliburton cementing presents—

1 Provides a permanent and safe seat regardless of formation.

2 Protects casing against external pressures to such an extent that a Halliburton-cemented casing *has never been known to collapse.*

3 *Prevents corrosion* by keeping highly mineralized fluids away from casing.

4 *Prevents shifting formations* by forming a tight seal between wall of hole and casing.

5 Forms a permanent dam against upper stratas so that there can be no migration of fluids from one strata to another.

6 Protects casing when shooting—without the necessity of lifting it 300 to 400 feet as ordinarily required.

7 Shuts off bottom water.

8 *Forms an absolute and everlasting protection from upper water.*

9 Makes it possible to set casing any distance from bottom, even though gas pressure is present.

10 Allows pulling of extra strings of casing—particularly important in cable-tool holes.

11 Brings gas blowouts under control.

12 Controls flow of gas when gas is used to stimulate production of oil [detailed information on this phase gladly given on request] and effectively kills gas wells too wild to be brought under control.

13 Detects sources of casing leaks, locates them and positively eliminates them.

14 Repairs split casing.

HALLIBURTON
OIL WELL CEMENTING CO.
Duncan •• Oklahoma

s of 1. Texas, Wichita Falls, Lowe 26, No. 622, G. Stubblefield sur, 240 ft s of 23.

Brazoria County—Roxana, Houston, Reese 2, T & W Alley sur, nw corner.

Callahan County—W. C. Mee, Abilene, Snyder 3B, s 4 b c, T&NO sur, 300 ft n on 1. Prairie, Ranger, Neeb 1, s 30 c. c. S. L., 150 ft to s & e lines. Wm. McGinley, Willmett, Ills., Gray No. 2 s Univ. Lands s 112, 300 ft n of 1; No. 3, Univ. Lands 300 ft w of 1; No. 4, s Univ. Lands 300 ft s of 1; 1A, s 111 Univ. Lands 150 ft to w & 450 ft to S line. Broderick & Calvert, Fort Worth, Hailey 1, s 28 b 5, S. P. Ry. sur, center. A. C. Bumpers, Morgan, Lewis 1, s 3000 TE&L sur 150 ft to s & w lines. Drew Beans, Cisco, Jackson 1 s 115 BB&C sur, 150 ft n & e lines. Navarro Oil Co., Houston, Bennett 1, b 99, C. C. S. L. sur, 150 ft to s & e lines. Ocean Oil & Ref. Co., Coleman, Henderson 9, b 73, 1181, 150 ft to n & 450 ft to w line. C. E. Starr, Baird, Mobley 1, 2294, TE&L sur, 150 ft to s & e lines. R. F. Gilman et al, Box 117, Cisco, Campbell 1, s 237 b, S. C. Pittman sur, 150 ft to n & e lines Dickey Oil Co., Cisco, Williams 1, s 28, D&D sur, 150 ft to s & e lines. McRae & Frost, Eastland, Ingram 5, s 19, Bayland Asy. sur, 150 to e & 750 ft to s line.

Crane County — Independent, Fort Worth, Taylor, s 6, H. T. Sapp sur, 580 ft s of 9. Texas, Wichita Falls, Univ. 1, s 46 b 30, Univ. Lands, 330 ft to n & 990 ft to w line. Gulf, Fort Worth, Lasseter 17, s 35 b 30, Univ. Lands 655 ft n of 2. McElroy 8, s 203, b F, CCSD&RGNG sur, 330 ft to e & 2940 ft to s line; 9, s 203, b F, CCsD&RGNG sur. 1980 ft to w & 660 ft to s line.

Caldwell County—Magnolia, Dallas, Proctor 14, Jno. Henry sur, 300 ft sw of 9. Trammel 18, N. Reaville sur, 200 ft to s & e lines.

Coleman County—Amerada, Cisco, Harris 9, s 6, J Sanders No. 162, 440 ft n of 7. Harris 125, s 9, J. Sanders sur, 1760 ft s of 43; 126, s 9, J. Sanders sur, 1760 ft n of 111. Seay 1, s 5, GH&H sur, 1320 ft to e & 2000 ft to s line.

Clay County—Western Oil Corp., Wichita Falls, Wyatt 13, b 25, P.C. S. L. sur, 50 ft n of 12. Hammond 2, s 33, b 4, P. C. S. L. sur, 275 ft w of 1.

Carson County—Prairie, Ranger, McMarland 2, s 67, b 4, I&GN sur, 990 ft to n & 330 ft to e line; 1, s 67, b 4, I&GN sur, 330 ft to s & e lines. Texas, Wichita Falls, Burnett 10, s 100, b 4, I&GN sur, 330 ft to n & e lines. Gulf, Fort worth, Noel 4, s 198, b 3, I&GN sur, 660 ft e of 3; 5, s 198, b 3, I&GN sur, 660 ft w of 1.

Cooke County—Magnolia, Dallas, Stacey 1, b 194, J. Clark sur, 150 ft to s & w lines. American Ref. Co., Wichita Falls, Dennis 10, T. J. Moss sur, 300 ft n of 8. J. P. Lott, Box 3801, Dallas, Schumacher 1, b 58, Scott.

Duval County—Humble, Houston, Kohle 5, No. 395, 1080 ft to e & 530 ft to s line. Cole Petroleum Co., Laredo, Arispe 35, s 21 b 4, 150 ft to ne & 450 ft to se line; 38, s 10, b 12, 155 ft to n & w lines; 37, s 21, b 6, 150 ft se & 450 ft to sw line. Barkley, Meadows & Morgan, Hebronville, King & Harper 1, s 323, nw corner; 2, s 323, 150 ft to nw & 1750 ft to sw line; 4, 150 ft sw of center of ne line.

Denton County — Daniels & McMahon, Gainesville, Wright 1, S. Nowling sur, 660 ft to s & w lines.

Eastland County—T. W. Bredwell, Mountain Peak, Okla., Free 1, 450 ft to s & w lines.

Fort Bend County—Gulf, Houston, Invincible 5, T. Hobermaker sur, 1118 ft to e & 296 ft to n line. Davis 24, Geo. Waters sur, 300 ft ne of 22. Trone 2, No. 67 H&TC sur, 1300 ft to s & 500 ft to e line. Luscher 10, T. Hobermaker sur, 200 ft s of 9.

Guadalupe County—Magnolia, Dallas, Carter 3, H. Cottle sur, 500 ft ne of 2. Roberts 6, H. Cottle sur, 600 ft ne of 5.

Hutchinson County—Gordon & Barnes, Amarillo, Sanford 1, s 83, b 46 H&TC sur, 330 ft to s & w lines. Japhet Production Co., Borger, Smith 7, s 11, BYM&C sur, 330 ft to s & e lines. Pure, Mexia, Johnson 5, s 70 b 46, H&TC sur, 719 ft n of 3. McMan, Tulsa, Sanford 1, s 83, b 46, H&TC sur, 330 ft to s & e lines. Cockrell 1, s 2, b 3, D&SE sur, 230 ft to e & 330 ft to s line; 2, s 2, b 3, D&SE sur, 230 ft to w & 330 ft to s line. Gulf, Fort Worth, Sanford 2, s 31, b 46, H&TC sur, 330 ft to w & 1660 ft to s line. Christian 2, M. Anglin sur, 400 ft to w and 70 ft to n line. Dial 39, s 1, b X, H&OB sur, 670 ft w of 30. Whittenburg 4, s 2, 660 ft n of 3. Hodges 2, s 5, b M26, T. C. sur, 320 ft n and 229 ft to e line. Phillips, Bartlesville, Okla., Whittenburg 8, s 71 b 46, H&TC sur, 656 ft s of 5. Kingsland 5, s 6, b 4, D&SE sur, 330 ft to n & w lines. Whittenburg 13, s 67, b46, H&TC sur, 634 ft n of 3. Kingsland 2, s 4 b Y, M&C sur, 330 ft to s & w lines. Martin 16, s 1 b XO2, H&OB sur, 665 ft n of 12; 15, s 1, b XO2, H&OB sur, 660 ft n of 13. George 7, s 26, b 47, H&TC sur, 990 ft to n and 997 ft to w line.

Howard County — Humble, Wichita Falls, Douthitt 3, s 123, b 29, nw, 330 ft to s & e lines; Clay 5, s 139, b 29, w&nw, 200 ft to e and 1120 ft to s line; A4, 700 ft to n and 1150 ft to e line; A3, 200 ft to s & e lines; 4, 200 ft to e and 1120 ft to s lines; Chalk A7, s 95, b 29, w&nw, 1962 ft to w and 250 ft to s line.

Harris County—Texas, Houston, House 20, M. Owens sur, 275 ft se of 17. W. O. Staley, Houston, Glover 1, Wm. Parker sur, nw corner. E. W. Skinner, Oil Co., Saratoga, Booker 3, M. E. Hopkins 1, center.

Haskell County—Blackstone Oil Co., Amarillo, Grissom 1, s 12, W. J. Montgomery sur, 1320 ft to w and 1220 ft to s line.

Hardin County—Texas, Houston, Homestake 1, S. Jackson sur, 75 ft to s & w line.

Jefferson County — Hines Bros. Oil Co., Beaumont, Parker 2, b 4, J. A. Veatch sur, nw of 1. Magnolia Petroleum Co., Dallas, Gladys 4, 375 ft w of 2.

Jack County — Eastern Petroleum Corp., Wichita Falls, Snedeker 4, J. Robbins sur, 479 ft to w and 160 ft to s line Empire Holding Corp., Wichita Falls, Barry 1, s 2642, b 16 Barry sur, 465 ft to n and 150 ft w line.

Jim Hogg County—Texas, Houston, Weil 2, Hooper & Wade No. 81, sw corner. Magnolia,

TEXACO

Petroleum Products

HIGH GRADE UNIFORM QUALITY

Gasoline	Pale Oils	Machine Oils	Waxes
Kerosene	Red Oils	Cylinder Oils	Asphalts
Fuel Oils	Black Oil	Car Oils	Road Oils
Diesel Fuels	Floor Oils	Greases	Asphalt Cement
Bunker Oils	Spindle Oils	Cup Greases	Pipe Coating
Signal Oils	Motor Oils	Gear Lubricants	Roofing
Miners Oil	Engine Oils	Axle Greases	Roofing Cement
Gas Oil	Dynamo Oils	Wire Rope Lubricants	
Distillates			

THE TEXAS COMPANY

New York — 17 Battery Place

Chicago — McCormick Bldg.

Houston — The Texas Company Bldg.

Offices in Principal Cities

Export Dept. 17 Battery Place, New York

Arrest Friction—the Thief of Power

INSURE POSITIVE DELIVERY OF THE CORRECT AMOUNT OF LUBRICANT, WITHOUT WASTE, BY USING

LUNKENHEIMER LUBRICATING DEVICES

"Sentinel" Oil Cup with Sight Feed

"Pioneer" Oil Cup without Sight Feed

The Lunkenheimer Company manufactures a complete line of Lubricating Devices—Oil Pumps, Lubricators, Oil and Grease Cups, in a wide range of patterns, sizes and capacities.

If you will sign and mail the coupon appearing below, interesting descriptive literature will be sent to you. No obligation.

Bronze "Ideal" Grease Cup

Brass "Jewel" Grease Cup

Bronze "Gem" Grease Cup

Bronze "Tiger" Grease Cup

"Junior" Lubricator Hydrostatic Single Connection

"Senior" Lubricator Hydrostatic Double Connection

"Paragon" Lubricator Gas Engine Type

"Banner" Lubricator Air Compressor Type

Steel "Ferro" Grease Cup

AMERICA'S BEST LUNKENHEIMER SINCE 1862

"Universal" Oil Pump Hand Operated

"Marvel" Oil Pump Mechanically Operated

THE LUNKENHEIMER CO.
"QUALITY"
CINCINNATI, OHIO, U.S.A.
NEW YORK CHICAGO BOSTON PITTSBURGH
SAN FRANCISCO NEW ORLEANS
LONDON
EXPORT DEPT. 129-135 LAFAYETTE ST., NEW YORK

Check the articles in which you are interested and mail for descriptive literature.

☐ Oil Pumps ☐ Lubricators ☐ Grease Cups ☐ Oil Cups

THE LUNKENHEIMER CO. "QUALITY"

P. O. Box 876, Cincinnati, Ohio, U. S. A.

Send me, without obligation, descriptive literature on articles checked. JK

Name .....

Firm .....

Position .....

Address .....

22023-19-90

Dallas, Merchants bk. 21, b 415, F. N. M. Brister sur, 400 ft sw of 16; 22, b 236, R. R. Brown sur, 300 ft se of 17.

King County—Midwest Expl. Co., Amarillo, Patton 1, s 102, b A, J. B. Rector sur, 1320 ft to n & e line.

Liberty County—Gulf, Houston, Marshall 2, Wm. Duncan sur, center.

Montague County — Continental, Wichita Falls, Maddox 2, b 6, C. W. Thompson sur, 357 ft to w and 150 ft to s line. Pure, Mexia, Crow 4, J. Chambliss sur, 410 ft nw 3. Arco Oil Co., Wichita Falls, Howard 5, J. W. Chambliss sur, 150 ft to s & e lines Contintal, Wichita Falls, Howard 25, J. Chambliss sur, 1099 ft to w and 150 ft to n line. F. P. Cullum, Wichita Falls, Howard 1, J. Chambliss sur, 110 ft to w and 150 ft to n line. Gulf Fort Worth, Howard-Dennis 9, J. Chambliss sur, 394 ft n of 2.

Maverick County—Ryan Cosol. Pet. Corp., Bartlesville, Okla., Indio 1, s 14, b 1, Ryan sur, nw corner.

Medina County—Ina Oil Co., San Antonio, Chas. Finger 2, b 5, lot 5, No. 746, 1525 ft to n and 2794 ft to w line.

McLennan County — Harry Archenhold, Waco, Williams 1, D. Faulkner sur, center.

Nolan County—Gustav Peters, W. T. Waggoner Bldg., Fort Worth, Boothe 1, s 90, b 21, T&P sur 150 ft to s & e lines of nw¼.

Navarro County—Magnolia, Dallas, Halbert 2, S. F. McCandless sur, 300 ft se of 1; 3, 150 ft to n & w lines. Magnolia, Dallas, Castle Oil Co., 1B, W. J. Carnes sur, 150 ft to s & e lines; Munsey 1B, M. J. Tidwell sur, 150 ft to n & e lines.

Palo Pinto County—Owens & Conway, Mineral Wells, Wheeler 1, s 36, b A, T&P sur, 2640 ft to e and 2440 ft to s line.

Pecos County—Jno. Doppleman, Fort Stockton, White 1, s 7, b 51, T&P sur, 330 ft to e and 1650 ft to s line.

Reagan County—Big Lake, Best, Univ. 120, s 1, b 2, Univ. sur, 400 ft e of 51; 121, 520 ft n of 74; 122, 520 ft e of 48; 123, 520 ft n of 98.

Shackelford County—Shadbolt & Creighton, Spencer Bldg., Cisco, English 1, s 542, TE&L sur, 150 ft to s & e lines. Barney Carter, Ranger, Huskey 1C, 548 TE&L sur. T. G. Shaw, Burkett, Broadfoot-Owens 4, s 20, Bayland Asy. sur, 150 ft to s & w lines. H. E. Trowbridge, Cisco, Townsend 14, b 55, Univ., 1350 ft to n and 350 ft to w line. 13, 1450 ft to n and 250 ft to w line; 12, 100 ft w of 13; 11, 100 ft w of 14; 10, 200 ft n of 13; 9, 100 ft n of 10; 8, 100 ft n of 9; 7, 100 ft n of 8; 6, 100 ft w of 7; 5, 1050 ft to n and 150 ft to w line; 4, 100 ft s of 5; 3, 100 ft s of 4. Midwest Expl. Co., Amarillo, English 3, 542 TE& L sur, 300 ft ne of 2. L. B. Tannehill, Albany, Mathews 5, s 58, E. T. Ry. sur, 300 ft w of 4. W. S. Duty, Tulsa, Dyer 1, s 85, b 12 T&P sur, ne corner. Wm. McGinlev, 763 Michigan Ave., Willmett, Ills., Gray 1B, s 110 Univ., 150 ft to s and e lines; 1D, s 113, 150 ft to w and 750 ft to s line; 1C, s 82, 150 ft to n and 1050 ft to w line. Midwest Expl. Co., Amarillo, Dyer 1, s 85 b 12 T&P sur, 150 ft to n & e lines.

Throckmorton County—Cranfill & Reynolds, Cisco, C. S. L. 2, s 5, 150 ft to w and 660 ft to s line.

Upton County—Marland, Fort Worth, Benton 3, s 1 J. Prater sur, 990 ft to s & w lines. Amerada Cisco, Hughes 6, Wm Teer sur, 1180 ft s of 1. Humble, Cisco, Ricker 4, s 5, M. S. Denton sur, 1320 ft s of 2.

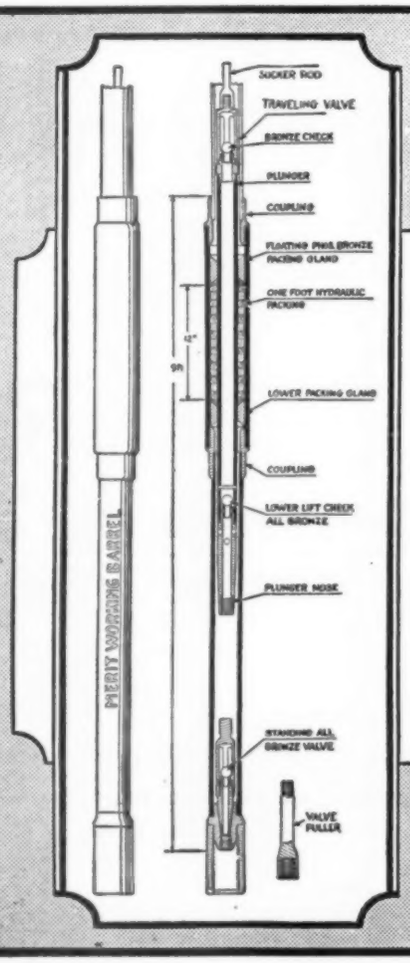
Val Verde County—Magnolia, Dallas, Whitehead 1, s 81, b D, GS&SF sur, 1900 ft to w and 900 ft to s line.

Wichita County—Weiler & Ailes, 1810 Filmore St., Wichita Falls, Rhodes 6, P. P. C. S. L. sur 150 to s & w lines. Dale Oil Corp., Wichita Falls, Burnett 23, J. F. Torrey No. 2, 300 ft n of 22. Gulf, Fort Worth, Burnett 41, s 5, HT&B sur, 450 ft e of 19. F. P. Cullum, Wichita Falls, Kemp 1, b 6, D. C. S. L. sur, 921 ft to n and 251 ft to E line. Hammon & Garrett, Wichita Falls, Bradley 1, S. Holloway sur, east central. Madison Oil & Gas Co., 913 Hillcrest, Fort Worth, Burnett 19 s 7, HT&B sur, 300 ft e of 18. Holbrook & Woods, Wichita Falls, Hodges 1, HT&B sur, 600 ft to e and 150 ft to s line. Seaboard Oil & Gas Co. & Prairie Oil & Gas Co., Ranger, Boyd 1, b 13, B. N. Ferguson 150 ft to n and 858 ft to w line. British American Oil Prod. Co., Wichita Falls, Kemp & Kempner 10, b 49, W. V. F. L. sur, 50 ft n of 9. Kimmell & Dillard & Bass, & Hammond, Wichita Falls, Ferguson 1, b 16, DL&C Co. No.712, 150 ft to w and 1050 ft to s line. Triangle Oil Co., Box 344, Fort Worth, Waggoner 3, b 14, A. Gibson sur, 300 ft sw of 1. T. F. Hunter, Wichita Falls, Waggoner 28, s 8, GH&H sur, 948 ft to e and 1046 ft to s line. Grayce Oil Co., Wichita Falls, Overby 3, H. B. Balch sur, 350 ft e of 1. Staley, Wynne & Co., Wichita Falls, Griffin 3, W. H. Spiller sur. Tulsa Oil Co., Wichita Falls, Yarbrough 28, s 29, H&TC sur, 50 ft ne of 27. Texas, Wichita Falls, Stringer 88, H&GN No. 2, 50 ft nw of 87. J. H. S. Bonner, Wichita Falls, Cole 16, J. McCool sur. American Ref. Co., Wichita Falls, Roller 7, R. J. Scott sur, 50 ft nw of 5. G. W. Cooper, Wichita Falls, Love 4, W. S. Kennard sur, 150 ft to s & e lines. Geo. L. Pace, Wichita Falls, Mitchell 6, P. Castleman sur, 300 ft n of 5. Magnolia, Dallas, Reilly 134, J. Ellis sur, 500 ft n of 132.

Wilbarger County—Fain McGaha Oil Corp., Waggoner Bldg., Wichita Falls, Waggoner 5, S 51, blk 5, H&TC sur, east of 4. Atlantic Co., Magnolia Bldg., Dallas, Fluhman 1, blk 4, Lippard Oil Co. sur. Consolidated of Texas, Wichita Falls, W. T. Waggoner 1, S 57, blk 4, H&TC sur, 600 ft to n and 150 ft to e line. Fain-McGaha Corp., Waggoner Bldg., Wichita Falls, Fluhman 8, Wm. McKinney sur, ne corner; 9, S 30, blk 9, H&TC sur, 300 ft nw of 2; 7, nw corner.

Webb County—Cole Petroleum Co., Laredo, R. V. Benavides 36, No. 412, blk 14, 266 ft to n and 169 ft to e line. E. St. Albans, Laredo, Puig 2, Albercas sur, 670 ft nw of 1. E. H. Neal, Laredo, Bruni 1, blk 41, Arriba sur, 150 ft to n and w lines. Magnolia, Dallas, Killam-Martinez 27B, No. 276 sur, 300 ft sw of 25.

Wheeler County — World Oil Co., Fort Worth, Jackson 3, S 11, blk 27, H&GN sur,



MERIT WORKING BARREL

A Tested Suction and Displacement Pump

Reduces operating expense.

Increases production.

Eliminates frequent rod pulling.

THE MERIT WORKING BARREL

Will pump floating sand. Has neither cups nor rings.

Will not cut oil.

Automatically packs itself.

In designing the Merit Working Barrel, all the weak points and faults of working barrels heretofore have been taken into consideration and practically eliminated.

The main features are:

1. Automatic take-up on packing.
2. Special design to pass liquid through hollow plunger without coming in contact with packing.
3. Special construction to permit pulling the standing valve without disarranging packing.
4. Ability to pump all grades of fluids from the heaviest to the lightest from all depths.

The Merit Working Barrel will solve your Working Barrel problems. Four years actual use back up our every claim for it.

Write for complete information

MERIT OIL EQUIPMENT

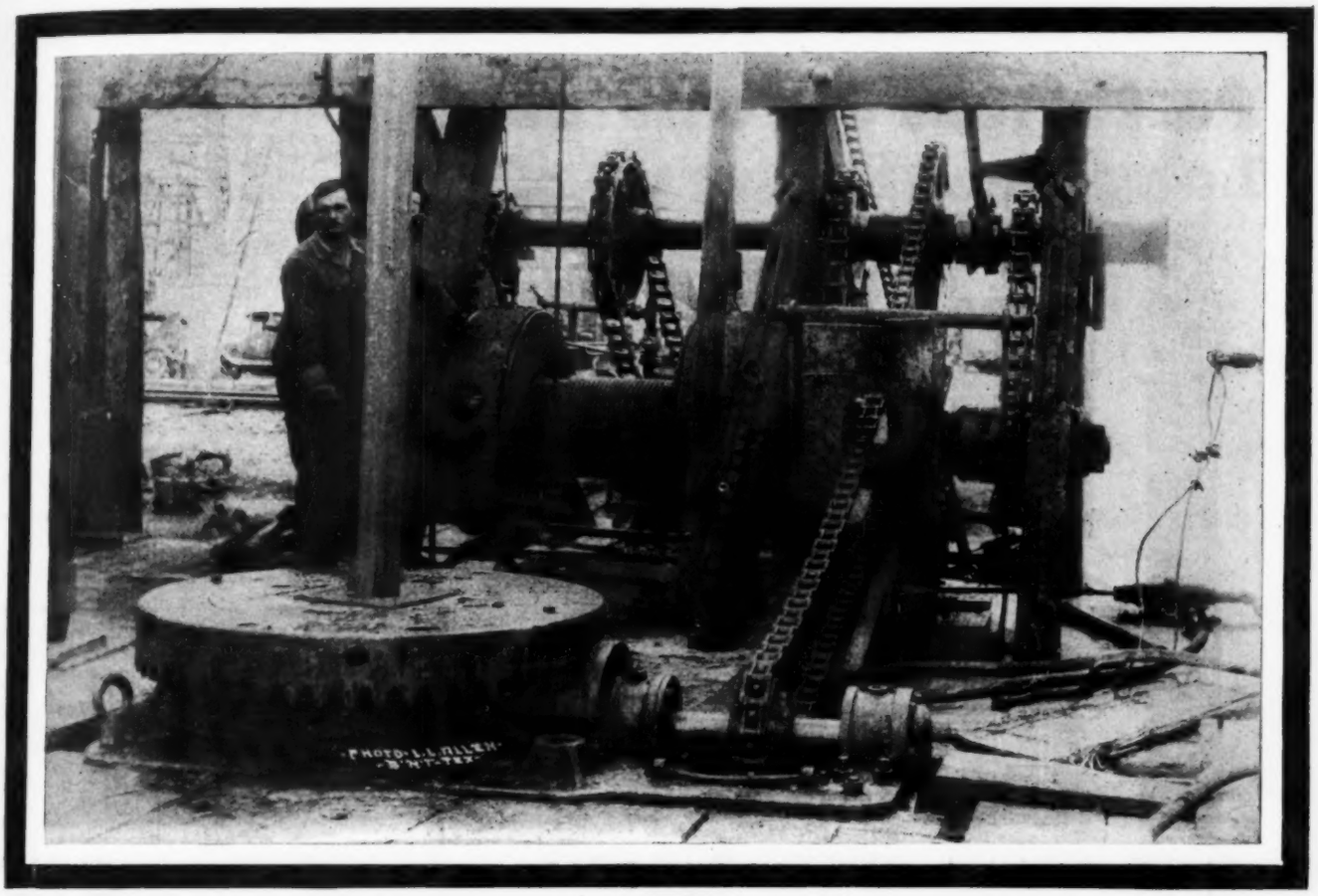
Merit Oil Equipment Company

5616 Morgan Ave. Cleveland, Ohio

SOUTHWESTERN REPRESENTATIVES:

J. F. Foster, 514 W. Allen St., Fort Worth, Texas

Say you saw it in The OIL WEEKLY



This Lucey Rotary has made over 40,000 feet of hole in the Spindletop Fields to date!

Wherever THE NAME IS A LUCEY GUARANTEE *there's Oil*

The illustration shows Mr. E. R. Scales, Driller, with a Lucey Rotary on the T. & N. O. lease No. 54 of the Rio Bravo Oil Company in the Spindletop Field, near Beaumont, Texas. This rotary of the latest Lucey design has made better than 40,000 feet of hole, and is one of a number of Lucey Rotaries being used in drilling the majority of the best producers at Spindletop.

Lucey Rotaries have always represented the very latest in design and construction since their introduction in 1901—and their performance during their twenty-six years of existence has always been uniformly satisfactory.

LUCEY MANUFACTURING CORPORATION
CHATTANOOGA, TENN.

DISTRIBUTORS:

LUCEY PRODUCTS CORP.
EXPORT: 3505 Woolworth Bldg., New York, N. Y.
DOMESTIC: Brady & Detroit Streets, Tulsa, Oklahoma; 416 West Eighth Street, Los Angeles, Calif.

T. T. WORD SUPPLY CO., Houston. Texas
AGENTS: International Supply Co., Tulsa, Okla.; Bradford Supply Co., Wichita Falls, Texas; George J. Hausen, Taft, Calif.

Perfection Core Barrel
Longer and Better Cores

EXPERIENCED operators tell us they get longer and better cores with the Perfection Barrel than with any other make of core barrel they have ever used. The core is examined by the simple expedient of removing the split liner and laying open the halves. Never any core removal difficulties with a Perfection.

We don't ask the fraternity to experiment. Simply tell us you are open to conviction, and we won't ask for an order until AFTER we have shown you exactly what the PERFECTION Core Barrel will do.

The six-bladed Perfection Bit Head will make more hole than a fishtail bit.

Let us send you descriptive circular, fully illustrated, with prices.

MANUFACTURED BY

Oil City Iron Works, Inc.

SHREVEPORT, LA.

STOCKED BY

Wilson Supply Co., General Offices, Houston
Hercules Supply Co., General Offices, Dallas

"CENTRAL" LINE PIPE

Of the same high grade we have maintained in "Central Standard Pipe for over sixteen years.

DISTRIBUTORS:

Taubman Supply Corporation, Tulsa, Oklahoma and branches
Dunigan Tool & Supply Company, Breckenridge, Texas and branches
Putnam Supply Company, Putnam, Texas, and branches
Louisiana Iron & Supply Company, Shreveport, Louisiana, and branches

CENTRAL TUBE COMPANY

General Offices: First National Bank Bldg., Pittsburgh, Pa.

Representatives in the Oil Fields

Mid-Continent
ALLEN, SPROULL & ALLEN,
Burk Burnett Bldg., Fort Worth, Texas

California
E. C. SAUL,
Monadnock Bldg., San Francisco, California

330 ft t n and w lines. Lone Star Gas Co., Dallas, Linkey 1, S 129, blk 23, H&GN sur, center. Gibson Oil Co., Amarillo, Bentley 4, S 42, blk 24, H&GN sur, 660 ft w of 2 Phillips 7, S 41, blk 24, H&GN sur, 660 ft n of 2.

Winkler County—Pure, Mexia, Hendrick 1, S 41, blk B5, School sur, 330 ft to s and w lines.

Wharton County — Weed-Gayle Oil Co., Beaumont, Kellar 5, S. F. Austin sur, 50 ft to e and 655 ft to s line. Bay 7, S. F. Austin sur, 340 ft to w and 300 ft to s line.

Young County — Canyon Oil & Gas Co., Cross Plains, Graham 1, blk 8, P. Pier sur, 525 to n and 200 ft to e line. Pitzer & West, Breckenridge, Allar Co. 1, Mathews & Wood sur, 200 ft to n and w lines. Roxana, South Bend, Payne 3, W. E. Smith sur, 550 ft to s and 240 ft to e line. Atkinson & Sandefer, Breckenridge, Ford 1, W. T. Carter sur, 160 ft to n and e lines. Ford 5, W. T. Carter sur, 330 ft to e and 300 ft to s line. Robert Oil Corp., Breckenridge, Little 1, I. Tolman sur, 150 ft to n and e lines.

Wildcats

(Continued from page 96)

ft. W. G. Stough et al's J. P. Willis 1, sd 730 ft. Phillips Pet. Co.'s Howell 1, lcn; Mason 1, testing oil pay 2520-24 ft; Winters 3 and 4, rigs; Thornton 1, fsh 2809 ft; Tessie-Walling 3, testing 1500 ft oih 2520-30 ft; Tessie-Walling 4, rig; 5, lcn. Swensondale Oil Co.'s Canton 1, spudding. J. L. Tomberlin et al's Clapp 1, materials. World Oil Co.'s Clark 1, sd 2710 ft; Lee-Boyd 1, dr 1870 ft. Zeigler et al's J. W. Reeves 1, dr 1350 ft.

KENT COUNTY—Douglas Oil Co.'s Scoggins 1, rig. Marland & Texon's Bilby 1, lcn.

KIMBLE COUNTY—Dixie Oil Co.'s Harrison 1, sd 3040 ft.

KING COUNTY — Gibson-Johnson et al's Burnett 1, spd and sd. Mid-West Exploration Co.'s Patton 1, rig. Phillips Pet. Co.'s Burnett 1, dr 455 ft. Sinclair's Burnett 1, spd and sd. J. L. Pattison et al's Patton 1, sd 1280 ft. White Eagle's Burnett 1, spd and sd.

LOVING COUNTY — Owen-Sloan et al's Johnson 1, center se section 20, blk 53, lcn. Kingwood Oil Co.'s Moore 1, lcn.

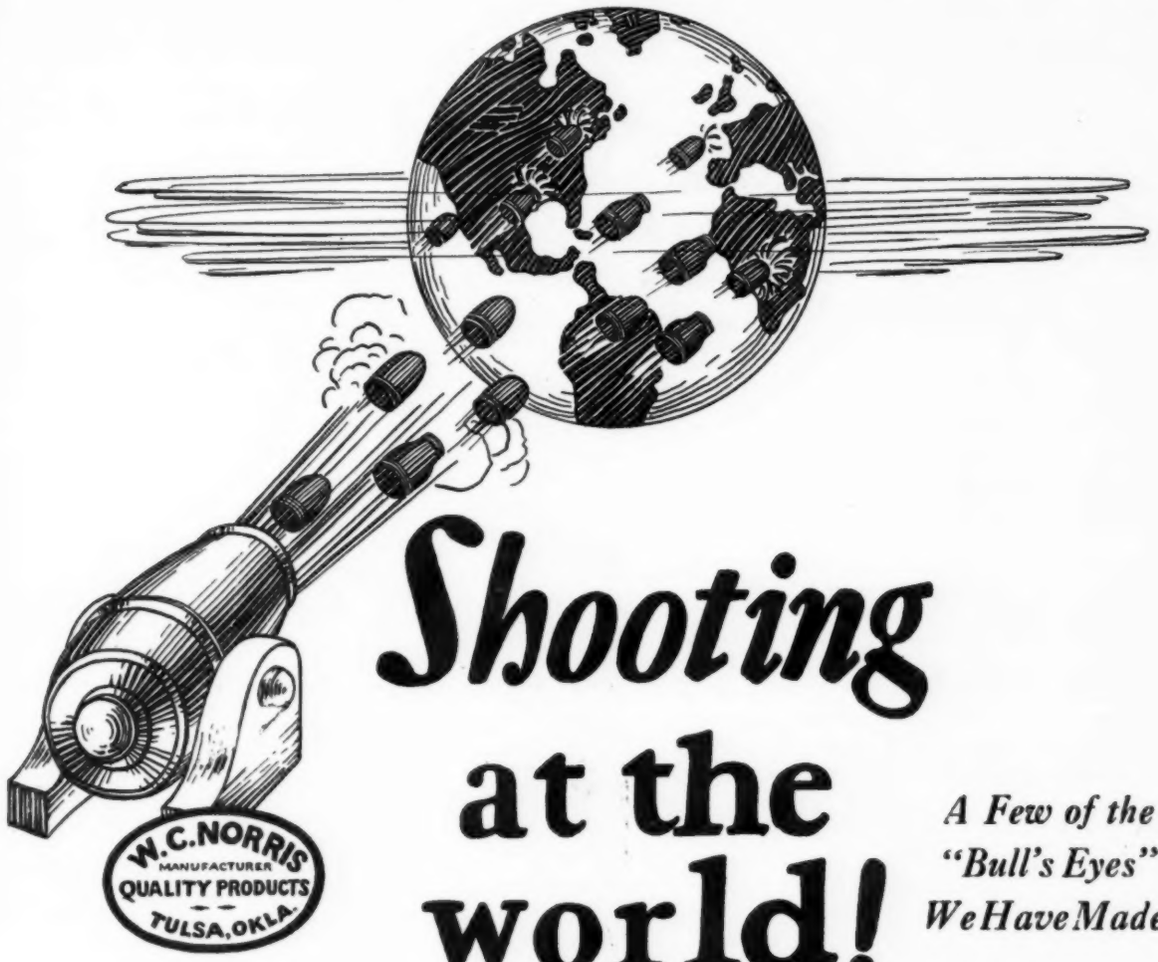
MENARD COUNTY—Clark et al's Kothman 1, sd 570 ft. Elliott & J. R. Lewis' White 1, sd 310 ft.

MITCHELL COUNTY — Magnolia's Mary Foster 4, dr 2445 ft; J. L. McKenney 1, dr 505 ft; W. W. Watson 2, dr 2175 ft. Paul Teas et al's Ed. Strain 1, dr 465 ft. Teas & Stivers' Hardee 1-A, dr 3430 ft. Morrison-Thompson's Griffin 1, set cas 2350 ft. Robert Thraves et al's C. Way 1, rig. B. E. Walters et al's Dollen 1, dr 3350 ft.

NOLAN COUNTY—Day et al's Arledge 1, lcn. A. G. Malone et al's Carlyle 1, lcn; M. C. Elmurray 1, rig. Herbert Oil Co.'s Pepper 1, rig. Thomas & Reynolds' Allen 1, ur 835 ft. Stein & Greeben's L. W. Ross 1, lcn. Phillips Pet. Co.'s Scott 1, rig. John H. Winemiller Corp.'s W. L. Booth 1, dr 705 ft. Walford et al's H. D. Simpson 1, lcn. Henry Zweifel & Hofmeier's Longbotham 1, dr 1010 ft.

PECOS COUNTY—Arkansas Fuel Oil Co.'s Manly Holmes 1, dr 90 ft. Buell-Hagan et al's Jasper County Fee 1, lcn; Southern Life-Batchelor 1, dr 1800 ft; University 1, elevation 2816 ft, top lime 1935 ft, sd 2630 ft; McKenzie 1, dk. Carl Cromwell & Kinmberlin's Blackman-Scharff 1, elevation 2402 ft, top salt 890 ft, dr 900 ft. T. R. Cowell's J. C. Trees 1, elevation 2545 ft, top lime 2875 ft, sd hfw 3110 ft. California Co.'s Cordova Union 1, dr 665 ft. Crosby Drilling Co.'s I. G. Yates 1, section 70, blk 1, show oil with flat hole 880-85 ft. John Droppleman et al's Mrs. Hersheusen 1, crooked hole 160 ft. Del Rio Drilling Synd.'s Perry 1, prob junked, td 740 ft. Garland & Mott's El Paso Cattle Fee 1, lcn. Kershaw & Livingston's Cannon 1, lcn. Humble & Kirby Pet. Co.'s Rheinstrom 1, elevation 2351 ft, top salt 830 ft, sd 1245 ft. Mid-Kansas & Transcontinental's I. G. Yates 3, elevation 2379 ft, top lime 992 ft, flowing 600 bbls oil 1000-70 ft; Yates 4, lcn; Yates 1-C and 2-C, lcns; Smith-Taylor 1, 2 and 3, lcns. Texon Oil & Land Co.'s Yates 1, testing pay 1268-1300 ft; Yates 2 and 3, lcns. Texon & Marland's Blakesly 1,

NORRIS QUALITY COSTS NO MORE AND PAYS BIG DIVIDENDS IN SERVICE



The Mark of Norris Quality

Shooting at the world!

A Few of the "Bull's Eyes" We Have Made!

VENEZUELA
COLOMBIA
BRAZIL
BOLIVIA
PERU
ARGENTINA
SOUTH EAST TURKEY
RUSSIA
DUTCH EAST INDIES
DUTCH WEST INDIES
INDIA
CANADA

You will find Norris Swedge Nipples and Bull Plugs in the most remote corners of the world. Quality has created a world wide demand. Wherever the search for oil has led . . . Russia, Africa, India, Egypt, Turkey . . . the quality of Norris Swedge Nipples and Bull Plugs is also known.

The care with which these Norris Quality fittings are manufactured, the materials from which they are made and their dependability in service, has made the world a target for sales.

The approval of the world is back of the Norris Quality Mark, look for it in buying Swedge Nipples and Bull Plugs. Then you will be assured of genuine Norris Quality, money can buy no better. W. C. NORRIS, *Manufacturer*, TULSA, OKLAHOMA. Branch Warehouse at Ft. Worth, Texas.

W.C.NORRIS MANUFACTURER NORRIS QUALITY PRODUCTS

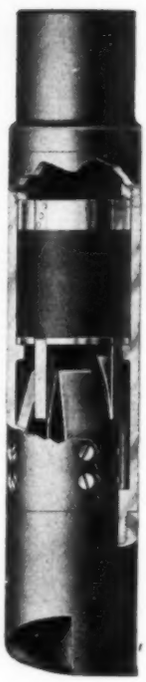
BAASH-ROSS PACKING OVERSHOT

Takes the grief out of fishing jobs

The Baash-Ross Packing Overshot is an effective and dependable packing-off overshot. It is instantly available as an overshot either with or without the packing-off assembly. To fortify every drilling string with a Baash-Ross Packing Overshot is the wisest kind of a precautionary measure.

When fishing, packing-off can be accomplished on a drill pipe coupling, or a tool joint by taking a strain on the fishing string. This engages the auxiliary springs under either the drill pipe coupling or the tool joint, expanding the packing and causing a seal or pack-off between the fishing string and the collar or joint. Further strain brings the load springs into action. Thus it is possible to pull on the fish as well as to establish circulation.

Write for complete details



BAASH-ROSS TOOL COMPANY
5813 BOYLE AVENUE PHONE DELAWARE 2461
LOS ANGELES CALIFORNIA
BRANCHES
Long Beach-Brea-Ventura-Taft-Rosecrans.
P. O. Box 694, Houston, Texas.

Jones Sucker Rods have pleased for Thirty Years.

S·M·Jones Company,
TOLEDO · OHIO

Tulsa Office: 602 Wright Building

rig. Quinby Oil Co.'s A. A. Gray 1, dr 165 ft; Bennett 2, dr 1375 ft; Townsite 1, sd 3435 ft.

PRESIDIO COUNTY — Hadlock-Miller et al's Tootle 1, co 2255 ft.

REAGAN COUNTY—The Texas Co.'s J. D. Sugg 2, top salt 860 ft, dr 1415 ft. Tidal Oil Co.'s University 1, lcn.

REEVES COUNTY—Deep Rock Oil Co.'s Caldwell 1, dr 2060 ft. Humble's T.&P. Fee 1, fsh 1380 ft. The Exploration Co.'s A. A. Kinney 1, spd and sd.

WARD COUNTY—Marland's Jennie Sealy 1-A, top salt 1070 ft, dr 1160 ft.

WINKLER COUNTY—Champlin Ref. Co. & Marland's Cowden 1, dr 940 ft. Gulf Prod. Co.'s T. G. Hendricks 1, elevation 2801 ft, top salt 1665 ft, top lime 2538 ft, cem cas 2690 ft. Ed. S. Hill-Ladd & Simon's Ambrugey 1, elevation 2995 ft, top salt 1220 ft, sd 3310 ft. Humble's Hendricks 1, rig; 1-A, lcn. Independent O. & G. Co.'s Hendricks 1, dr 1565 ft. Llano Oil Co.'s Scarborough 1, elevation 2921 ft, top salt 1115 ft, dr 1885 ft. McCullough & Marland's Tobe Martin 1, ur 12½ cas 1140 ft. R. S. Matthews et al's Cowden 1, elevation 3128 ft, skid rig, td 1225 ft. Pure's Bank Fee 1, lcn. Skelly Oil Co.'s M. M. Leeman 1, dr 610 ft. Southern Crude Oil Purchasing Co.'s Hendricks 1-C, elevation 2801 ft, top salt 1910 ft, cem 8¼ cas and stdz 2505 ft; Hendricks 2-C, top salt 1900 ft, dr 1934 ft; Hendricks 3-C, rig. F. B. Zoch et al's Sealy 1-A, dr 3810 ft. White Eagle O. & R. Co.'s R. A. Leck 1, lcn.

Completions

(Continued from page 80)

ELECTRA

Bridwell-Mayfield et al, Waggoner 3	15	1898
Bullington, Lee & Pendleton, Jennings 6-B	20	1826
Continental, Burnett 13-E	*	2000
Culberson Oil Co., Waggoner 52	*	1617
Dale Oil Corp., Burnett 21	*	1407
Empire, Pierce Oil Corp., Fee 21	15	1463
John O'Neil, Allingham 2	*	1972
Pois & Fine et al, Waggoner 1	*	2209
Rio Bravo, Waggoner 1-C	*	2112

GRAY COUNTY

McMan O. & G. Co., Osborne-Binkley 1	225	3171
Texas Co., H. M. Davis 1, ¶1 and	235	3100

HOWARD COUNTY

Magnolia, Mary Chalk 3	45	1664
Marland, Chalk 4-A, shot	55	1571
Otis Chalk 1-B, shot	77	1604
Otis Chalk 1-D, shot	75	1714
H. R. Clay 2-A, shot	125	1800

HUTCHINSON COUNTY

Buffalo Oil Co., Smith 2, shot	55	3019
Dixon Creek Oil Co., Smith 51, shot	600	2911
Donald et al, W. B. Haile 1, shot	20	3090
Empire, Johnson 6-A, shot	130	2890
Johnson 8-A, shot	200	2789
Mid-West, Johnson-Barnum 1, shot	20	2723
Mudge Oil Co., Cockrell 1, shot	15	2985
Phillips, Johnson-Easter 4, shot	100	2829
J. J. Perkins-Martin 11, shot	155	2936
J. J. Perkins-Martin 12, shot	300	2976
Whittenburg-Patton 14, shot	100	2849
Prairie & Phillips, Johnson 41-A	100	3010
Johnson 45-A	900	2955
Johnson 49-A	100	2992

JACK COUNTY

Buttram Pet. Corp., Kuykendall 1	*	1965

JONES COUNTY

Phillips, Beasley 1	280	2530

K-M-A & IOWA PARK

C. H. Gilchrist et al, Overby 1	*	510
Overby 2	*	726
Gulf, Griffin 4-C	65	1822
O'Donohue & Gates, Love 1	200	1816
Panhandle Ref. Co., Griffin 3	25	1813
Riley-Griffin 7	*	2200
Riley-Griffin 8	*	1873

(Continued on page 110)

ASK THE OFFICIAL OIL DOCTOR

he knows.

How to Bring "Cut" Oil to Pipe-Line Requirements Economically and Increase Your Profits

In every barrel of emulsion deducted from your crude, there's a certain amount of good oil **which you give away . . . .** Why?

"Petreco" Electrical Dehydration stops this waste at a negligible cost per barrel, by recovering the good oil from the emulsion content, and this recovery represents handsome dividends in a year's time.

In prescribing for your particular case the "Official Oil Doctor" makes no mistakes—no guesses—he knows! A decade of experience in all fields and with all grades of oil provides a fund of practical information for the application of "Petreco" to specific conditions.

Consult the "Official Oil Doctor.' Get "Petreco" and get the Price!

Our booklet, "The Electrical Process for the Dehydration of Crude Oil Emulsions", which is exclusively "Petreco", will be sent upon request. It will be found very interesting.

PETROLEUM RECTIFYING COMPANY of CALIFORNIA

306 Union Oil Bldg. Los Angeles, Calif. — Petroleum Bldg. Houston, Texas

Go To Your Nearest Supply Store for "H-E" TOOLS

"The Edwards Reversing Tool"

Patented

—Reversing Tools
—Casing Cutters
—Spears
—Jars
—Overshots
—Flow Testers

Every Tool Dependable and of Proven Performance

Write for Literature

Houston Engineers

Houston, Texas

CARBON (BLACK DIAMONDS)
FOR DIAMOND CORE DRILLS

IMPORTERS
INDUSTRIAL DIAMONDS
MANUFACTURERS
DIAMOND POINTED TOOLS FOR ALL MECHANICAL PURPOSES

WRITE OR WIRE FOR CATALOGUE AND FULL PARTICULARS
THE DIAMOND DRILL CARBON CO.
58 PARK ROW, NEW YORK, N.Y. CABLE ADDRESS, CREGOTAN, N.Y.

Company, Well and Location	Initial Production Bbls.	Depth
Petroleum Prod. Co., Love 1-A ...	*	515
Love (shallow) 6	15	495
Love 4-B	100	1816
Allen-Kemp 6-D	40	1653
Staley-Wynn et al, Griffin 3	55	1812
MITCHELL COUNTY		
The California Co., C. M. Adams 5-B	60	3060
Morrison 12-B	45	3052
Magnolia, Francis Adams 3	65	3062
MONTAGUE COUNTY		
Arco Oil Co., Howard 4	*	1200
Cato Oil Co., Rolls 12	40	873
Continental, York 1	*	1652
E. J. Bouldin 2	*	1712
N. J. Howard 19-A	*	1610
N. J. Howard 8-B	25	1389
Maddox 19-A	*	1450
Maddox 20-A	35	935
Rowland 13-B	80	1122
M. H. Salmon 8	35	916
Empire, Maddox 2	¶15	879
Gulf, E. J. Bouldin 1-A	45	824
Howard-Dennis 6	25	1394
Howard-Dennis 7	12	1408
Howard-Dennis 8	25	1180
Humble, Howard 5	20	1387
Pure, Crowe 1	50	895
Crowe 2	105	913
J. W. Maddox 6-C	35	915
J. W. Maddox 4-D	95	865
J. W. Maddox 5-D	30	866
E. L. Smith Oil Co., Maddox 5 .	70	892
Texas Co., Bouldin 2	*	1668
N. J. Howard 1-B	*	1756
J. W. Maddox 8-D	65	927
J. W. Maddox 9-D	70	970
McGaughy 1	*	1703
SHACKELFORD COUNTY		
Hope O. & G. Co., Davis 8	15	1440
Davis 9	50	1449
Reynolds 15	60	1270
Reynolds 16	65	1405
Hughes et al, Bernstein 1	*	853
Hyde & James, Moberly 1	*	1450
Mid-West Dyer 1	30	882
Milham Corp., Moore 5	50	2156
Roeser-Pendleton & Marland, W. I. Cook 40-A (sec 60)	30	1158
W. I. Cook 25-A (sec 85)	25	1335
Moberly 12-A (sec 13)	3	1460
Moberly 15-A (sec 13)	170	1299
Moberly 5-B (sec 12)	125	1241
Nail 1-A (sec 154)	*	2029
Sinclair, Nail 2	*	2004
Southern Explo. Co., Dyer 4.....	10	920
Tannehill Oil Co., Matthews 4.....	50	1021
SOUTH VERNON DISTRICT		
Fain-McGaha & Murchison, Waggoner 4-E	400	1990
Gulf, C. F. Blackman 2	100	1490
Humble, Waggoner 14-O.....	70	2393
Milham Corp., Waggoner 1-M.....	*	3005
Murchison Oil Co., Waggoner 1..	*	2034
Phillips, Waggoner 4-R	200	1883
Quincy Oil Co. Kemp et al 2.....	*	1837
STEPHENS COUNTY		
Eidson et al, Smith 1 .....¶4-20		1974
Milham Corp., Thorp 1	*	3820
UPTON COUNTY		
Bryant & Atlantic, Baker 1.....	30	2308
Independent O. & G., Wooley 12..	125	2168
Wooley 14	50	2193
Prairie, Lane 3	900	2075
Roxana, Bowen 10	195	2231
Della Bowen 11	410	2112
Della Bowen 12	300	2132
Della Bowen 13, ...	680	2114
Sun Co., Baker 1	40	2285
Texas Co., R. King 21	140	2494
WHEELER COUNTY		
Hill-Cook & Riley, J. M. Porter 1..	*	2610
Piney Oil Co., J. A. Clark 1.....	*	2395
YOUNG COUNTY		
Boller et al, Gragg 1	40	1746
Cunningham et al, Peters 2.....	*	815
King Royalty Co. and Tidal Oil Co., Benson 28-B	20	939
Nash-Windfohr & Phillips Pet. Co., Fawks 1 . .....¶¾-125		2345
Texas Co., Stewart 5	5	824
Woods & Holbrook, Watson 3....	40	566
SOUTHWEST TEXAS		
Jim Hogg County—		
Magnloia, Martinez 26	20	2009

Regardless of Size

Make 'Em of Agathon

THE bigger the bit, the more the reason for making it of Agathon Alloy Steel. This huge Fishtail bit and drill collar were made of Agathon Alloy Steel by the Pelican Well Tool and Supply Company, Shreveport, La. It measures 22½ inches across and weighs 518 pounds. Smaller bits of all kinds, also jars and joints, are made of these super-steels and used in oil fields everywhere. For Agathon Alloy Steels are the most economical to use. They render three times the service of ordinary steels. This means one-third the pullings, dressings and delays and hastens the bringing in of new wells.

Our metallurgists will gladly work with you in adopting Agathon Alloy Steels to meet your individual requirements. Write for a copy of the Agathon Alloy Steel Handbook.

Mid-Continent Office:
406 W. First St.
Tulsa, Oklahoma

Central Alloy Steel Corporation, Massillon, Ohio

Makers of Toncan Copper Mo-lyb-den-um Iron

Cleveland · Syracuse · San Francisco · Detroit · Philadelphia · Chicago · Los Angeles · New York · Tulsa · St. Louis · Seattle · Cincinnati

AGATHON STEELS

AGATHON ALLOY STEELS

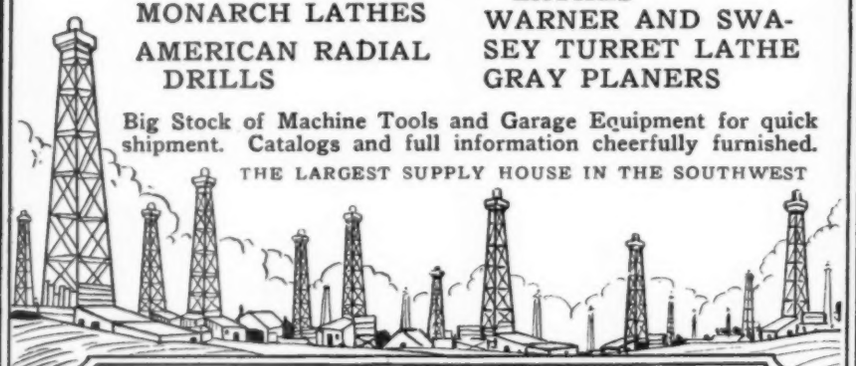
Everything *for the oil well*

Machine Tools

BEAUDRY POWER HAMMERS
AMERICAN LATHES
MONARCH LATHES
AMERICAN RADIAL DRILLS
MILWAUKEE MILLING MACHINES
"LIBBY" TURRET LATHES
WARNER AND SWASEY TURRET LATHE
GRAY PLANERS

Big Stock of Machine Tools and Garage Equipment for quick shipment. Catalogs and full information cheerfully furnished.

THE LARGEST SUPPLY HOUSE IN THE SOUTHWEST



PEDEN IRON & STEEL CO.
HOUSTON – SAN ANTONIO – SHREVEPORT

INSIDE FACTS about the Roark Standing Valve

A. Threaded to screw directly onto working barrel—permits longer stroke, large capacity.

B. This extra heavy steel body is practically indestructible, guaranteeing long life and hard usage.

C. Thick perforated plate protects ball and seat from injury from falling rods or foreign particles.

D.-E. Fluted ball guides designed to prevent chattering of valve regardless of plunger speed.

F. Large ball is of special type, made of highest quality hardened tool steel.

G. The Roark Valve is threaded as shown, for tubing anchor collar. Every precaution for long, efficient service.

H. Threaded for over-size gas anchor. Large capacity of Roark prevents Cut Oil and B. S.

I. Ball and seat and seat frame easily and cheaply renewed—an economy feature that makes valve like new.

—from your supply house.

TEXAS OIL PUMP COMPANY
Waco, Texas

Special Equipment Used in Capping Gasser

How a gas blow-out on a well being drilled by the Canadian Oil Company, near Shamrock, Texas, was successfully handled is told by Lew Hilton, Mid-Continent manager of the Regan Sales Company. The well is located on the Linkey property near Shamrock and was blowing wild, making 90,000,000 feet of gas when capped.

Mr. Hilton's account of capping the well follows:

"When the crew arrived at the well we found that the casing in the well consisted of three joints of 20-inch, and a string of 10-inch casing set on the bottom with no clamps bu with a collar at the top of same down in the cellar. Inside of the 10-inch a string of 8¼-inch was suspended on a spider and equipped with a collar and a nipple. The gas was going out through the nipple.

"We decided that it was totally impractical, on account of the terrific volume and pressure of gas, to unscrew the 8¼-inch casing nipple in order to cut same for the purpose of placing the first part of a control head on same and decided that the better course would be to build up the 10-inch to the top of the 8¼-inch casing first. After measurements were taken, a nipple was cut and we proceeded as follows:

"As the 8¼-inch casing had a collar up and could not be safely unscrewed, we decided to take an 18-inch nipple and insert it on top af the 8¼-inch collar. On top of this nipple a Regan Santa Fe type coupling, taken from a 10x8¼ Regan spool, was first attached. This nipple and collar were then screwed in the bottom of a joint of 8¼-inch pipe for the purpose of giving the necessary dead weight to offset the terrific upward pressure of the gas and in this way it was possible to screw the pipe into the collar of the 8¼-inch casing. With this accomplished it was then possible to remove the elevating joint and spider holding the 8¼-inch casing. This left the 8¼-inch pipe with the Regan coupling up.

"The next procedure was to take a 10-inch built-up nipple with a Regan 10-inch bottom flange attached to the top of the nipple and strip it over the 8¼-inch joint and back it down to the 10-inch collar down at the bottom of the cellar. The nipple was then screwed into the 10-inch coupling in the cellar.

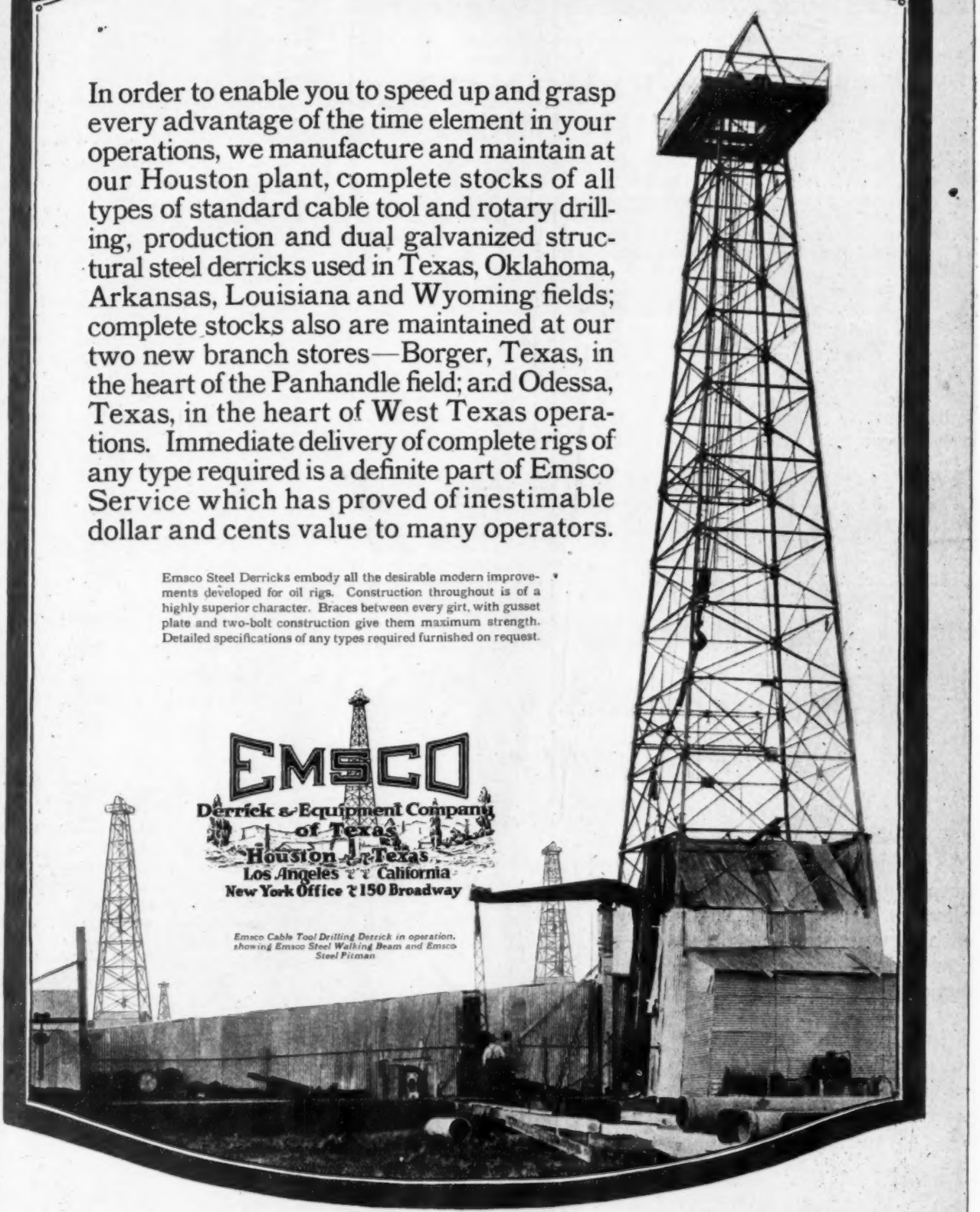
"This brought the top of the 10-inch bottom flange to the proper distance below the 8¼-inch Regan special coupling so that a 10x8¼ spool could be screwed thereon at the desired location.

"In order to mount the spool the temporary joint of 8¼-inch casing was again utilized. Over this was stripped the spool, to about one-half the distance up the joint and securely lashed to the joint. The 8¼-inch joint was then screwed into the Regan coupling

EMSCO
A Complete Line of Better Oil Well Equipment

In order to enable you to speed up and grasp every advantage of the time element in your operations, we manufacture and maintain at our Houston plant, complete stocks of all types of standard cable tool and rotary drilling, production and dual galvanized structural steel derricks used in Texas, Oklahoma, Arkansas, Louisiana and Wyoming fields; complete stocks also are maintained at our two new branch stores—Borger, Texas, in the heart of the Panhandle field; and Odessa, Texas, in the heart of West Texas operations. Immediate delivery of complete rigs of any type required is a definite part of Emsco Service which has proved of inestimable dollar and cents value to many operators.

Emsco Steel Derricks embody all the desirable modern improvements developed for oil rigs. Construction throughout is of a highly superior character. Braces between every girt, with gusset plate and two-bolt construction give them maximum strength. Detailed specifications of any types required furnished on request.



EMSCO
Derrick & Equipment Company
of Texas
Houston, Texas
Los Angeles, California
New York Office, 150 Broadway

Emsco Cable Tool Drilling Derrick in operation, showing Emsco Steel Walking Beam and Emsco Steel Pitman

Emsco Steel Equipped Wells are SAFE

3,000-Bbl. Maloneys, Cosden Pipe Line, Seminole Station

MALONEYS ELIMINATE EVAPORATION LOSSES

You can prevent loss in quantity and quality of your petroleum products by storing them in MALONEYS. These tanks are rendered vapor-tight by their patented crimp at seams and joints; by the use of our special Gaso cement. MALONEYS are constructed of rust-resisting Keystone Copper Steel, and have cleaning-out plates set flush with bottoms, reinforced seams.

Howell Aluminum "3 in 1" Vacuum Pressure Valve and Thief Hatch— The BEST and LATEST Deck Equipment— POSITIVE Safety

THE MALONEY TANK MFG. CO.

Tulsa, Oklahoma

MADE OF KEYSTONE COPPER STEEL

Distributors at All Principal Petroleum Points
Sizes 12 to 3,000 Bbls.

Packed in Steel-Bound Crates for Export

MADE OF KEYSTONE COPPER STEEL

MALONEY

A CHALLENGE

Prove to yourself

WE WILL LOAN to any reputable company for experimental purposes a B. & A. Underslung Rod Elevator. Test it in any way you wish against the elevator you are now using—prove to YOUR satisfaction that it will do the job better.

Just tear out this advertisement and write across the bottom. You are not getting maximum elevator performance unless you make this test. Write now—TODAY!

B. & A. SPECIALTY COMPANY

220 E. Brady St. TULSA, OKLAHOMA Tel. 3-3282
HOUSTON, TEXAS

Write Name and Mail NOW

and the slack of the pipe was taken up, after which the spool was screwed over the coupling and the bolts added and tightened. The temporary 8¼-inch joint was then unscrewed from the coupling.

"At this stage of the work the 10-inch casing was tied to the 8¼-inch string, all of which could have been eliminated had a bottom flange been set at the time the 10-inch casing was originally landed.

"The well was now ready to be capped as the necessary equipment had been installed, but under difficulties.

"To cap the well an 8¼-inch Regan companion flange was equipped with a nipple, tee, nipple and gate valve. The side opening of the tee was also equipped with another nipple and gate valve, providing two openings.

"This entire assembly was brought to the cellar and the companion flange was attached to the spool, eccentric fashion, by means of one bolt not screwed too tightly. With this one bolt holding the spool and flange, the entire assembly was swung around through the gas flow and the boys waiting with bolts, slipped them through the flange holes as soon as the assembly was brought completely over the hole and then tightened the bolts. This completed the capping and it was then simple work to turn down the valve and gradually shut in the gas."

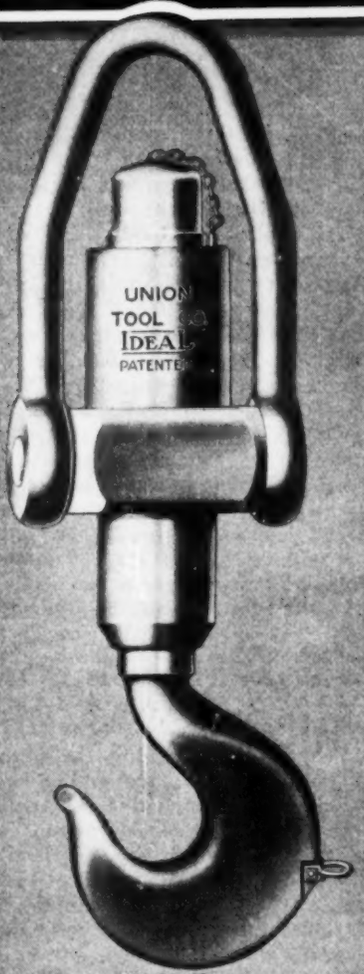
Two Good Completions at Salt Creek

Casper, Wyo.—The Midwest Refining Company completed two exceptional wells in the Salt Creek field during the week. No. 3L, northeast quarter of section 26-40-79, was completed in the Lakota sand and flowed 3900 barrels on a 24 hour test. No. 22L, also a Lakota sand well, was completed on the northwest quarter of section 26-40-79 and produced 3600 barrels on a daily test. Both wells are shut in after being tested. Section 26 is in the center of Lakota sand production and has yielded gushers consistently. More production is now shut in in the Lakota sand than is actually produced from both the first and second Wall Creeks.

Illinois Pipe Line Plans Western Division

Casper, Wyo.—The Illinois Pipe Line Company will create a western division within the next 30 days, according to reliable reports received from eastern headquarters. No official confirmation has been received but the action will probably result from the increased business in the western territory. The company operates extensively from Canada to Mexico, and will profit by the guidance of a western manager.

IDEAL
SPRING CASING HOOK



THE
NATIONAL SUPPLY
COMPANIES

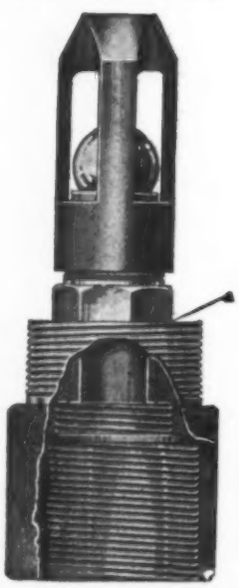
Say you saw it in The OIL WEEKLY

Always the Same

Not just a "steel"—that may be good at times—but a steel that is always the same—always dependable — Diamond "H" Bit and Jar Steel is made from the highest grade open hearth ingots by experienced steel makers who aim at all times to produce the "best steel" for oil well drilling tools.

HEPPENSTALL
Forge & Knife Co.
PITTSBURGH, PENNA.
Fort Worth—Texas Office
1415 F. & M. Bank Building

Foreign Countries Demand It



The fame of the improved Adams Combination Cuff and Standing Valve has extended overseas. Old-fashioned leathers eliminated, easier to install, longer life.

WRITE FOR PRICES

SOUTHERN BRASS MFG. & PLATING COMPANY
6614 Harrisburg Blvd., Houston, Texas

Kevin-Sunburst to Have Much Activity

Great Falls, Mont.—The Kevin-Sunburst field, after being virtually buried with snow the greater part of the winter, is beginning to reflect activity in the number of locations made for new wells. It is expected that the number will increase until upward of 20 locations will be made per week. Drilling will be done earlier this year despite crude cuts in other fields. The purchasers of Kevin-Sunburst crude have shied away from any price cuts. Producers in the field have at last realized their ambition—for a time at least. They are actually receiving above Mid-Continent prices for crude. When prices were raised the oil in this field remained the same. Now that the cuts have come, the score is evened, temporarily at least.

Check Test of Show in Teapot Dome Well

Casper, Wyo.—The U. S. Geological Survey is not satisfied with the first test given the Margalexon Oil company's well on the eastern edge of Teapot dome and has ordered another test to determine whether the well is a commercial producer at 2980 feet, where considerable shale oil was found. It is customary to produce wells when it can be done profitably. The Margalexon well created considerable interest through its discovery and other wells undoubtedly will be drilled outside the naval reserve. Margalexon officials were especially anxious to test the Frontier sand, which is expected at less than 3250 feet but have been checked by the government order to again test the well. The present showing of oil is coming from a shale formation. The government regards the shale as one of the best chances for production.

D. & M. Pistons Make Big Saving

Houston.—By replacing the regular 6¾-inch piston using the common rubber sleeves of ⅝-inch thickness with a set of 5¾-inch D. & M. pistons and California valves in one of its 12x6 ¾x12 old style Union Tool Ideal pumps at Goose Creek, the Humble Oil & Refining Company has already saved between $75 and $80, and is still realizing a saving.

The Simms-Smith No. 70 well of the Humble started operations November 15, 1926, using two 12x6 ¾x12 Union Tool Ideal pumps, about five years old, equipped with regular or standard parts throughout. During the first four days of drilling an average of three rubber sleeves a day were worn out and changed, costing $1.38 per sleeve, besides the time spent in making the changes. This performance was representative of the service obtained

Look for the name "ALTEN'S" on each one

VALVE RODS
SINKERS
ADJUSTERS
OIL SAVERS
POLISH RODS
STUFFING BOXES
CASING HEADS
CHECK VALVES
ROPE SOCKETS
POWER PUMPS
BELT CLAMPS
PIPE HOOKS
STOP COCKS
PULL RODS
WHEELS
FORGES
STOVES
PUMPING JACKS
PULLEY BLOCKS

ALTEN'S
Foundry & Machine Works
Established 1889
LANCASTER, ... OHIO

The Tret-o-lite Process is Economical

Recovery cost only a few cents a barrel. Practically no power expense—no payment of royalty—minimum labor. Our nearest field representative is at your service.

Wm. S. Barnickel & Co.
St. Louis, Mo.

Experience is Sometimes a Costly Teacher!

The time to learn exactly how a valve will act in service is BEFORE not AFTER you have put it on the job.

So why experiment when you can specify Darling Valves and BE SURE? There's a Darling Gate Valve for every place and purpose—a Darling Gate Valve built to stay tight, wear long, and operate with ease. And men who use Darlings say that their efficiency reduces production losses to a minimum.

Self-aligning, self-cleaning discs. No pockets or ribs to collect sand and scale. Simple and compact—will not jam nor dissemble. Easily repaired in the field—yet repairs are seldom needed.

Ask the old-timer what he thinks of Darlings—and write for construction features.

DARLING VALVE & MFG. CO.

Williamsport, Pa.

New York Chicago Oklahoma City Houston

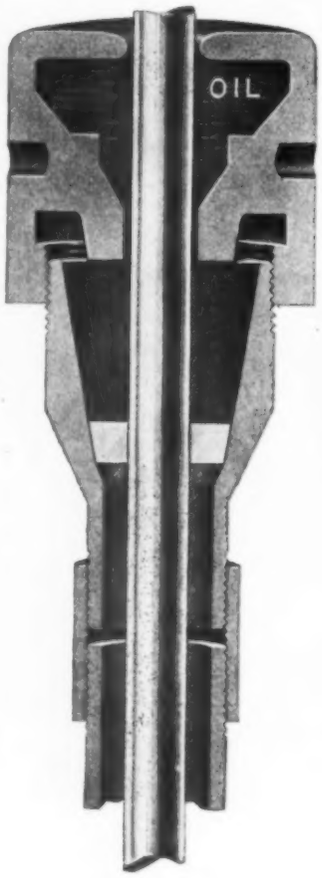
Mid-Continent Distributors:

Frick-Reid Supply Co. Atlas Supply Co.
International Supply Co. Petroleum Supply Co.

California Distributor:

Petroleum Equipment Company, Los Angeles

DARLING
GATE VALVES



For All Pumping Wells

FULLER Stuffing Box

You'll find the self-lubricating feature and sturdy construction of the Fuller Stuffing Box a valuable insurance against shutdowns on pumping wells. Pressure on the babbit ring acts against the rubber packing and makes a tighter seal as the force increases. Pressure is released on the downstroke minimizing friction. The oil container lubricates the polish rod when the well is idling. The box withstands gas pressure up to 400 pounds with strength to spare. Experience shows the small extra cost is cheap insurance.

In equipping new wells use the Stuffing Box with built-in cross. Saves awkward fittings. 2½" lead line connections. Write for folder.

Manufactured and Distributed by

Fuller Machine & Forge Works

Plant: (Butler Road), Santa Fe Springs, Calif.

Mail Address:
Norwalk, Calif., R. F. D. 2, Box 15

Leading Supply Stores
Agent, Tulsa, Oklahoma
Robert N. Atmore Co.

M. M. VALERIUS

Petroleum Geologist

H. F. Wilcox Oil and Gas Company Building

Tulsa, Oklahoma

from the sleeves on other wells, the record shows. One of the pumps was equipped November 19 with a new set of liners and a set of 6¾-inch D. & M. pistons, leaving the other pump as it stood. On the following day a complete set of eight Adco valves were installed in the pump equipped with the D. & M. pistons. Following this installation the pump was run 31 days without a shutdown, except for coming out and going in the hole, during which time 3583 feet of hole was made.

The second pump was equipped with a set of D. & M. pistons December 20, and was run until February 1, with the exception of necessary short stops and a 10-day shutdown for casing to set. The second piston showed perfect performance during its period of operation, but the good record goes to the first piston used inasmuch as it was placed in operation to alternate with the other pump, thus adding to its previous record.

During the operation of the D. & M. piston for 31 days there was a repair bill of $4.96 for a piston rod and $1.25 for nuts, together with $45 for the initial piston cost totaling $52.21. The actual equipment saving on rubber sleeves alone was roughly $128, making the saving of more than $75 aside from a saving of time in making changes in pump parts.

At a depth of 5060 feet early this week the Simms-Smith No. 70 had a stuck drill stem. The D. & M. pistons were still in use as well as the Adco valves.

The D. & M. piston is practically new in the Gulf Coast territory, having been used more by the Humble in its Goose Creek well more than at any other place.

Sweet Grass Hills

Great Falls, Mont.—Further development of the Sweet Grass hills is certain, following the announcement by many of the largest operators in the Kevin-Sunburst field that they would thoroughly wildcat the arch in several places. The Ohio Oil Company is extensively interested in the development program. It is reported that 12 different structures will be drilled. The Sweet Grass region has been extensively drilled, but little oil has been found. Many of the wells completed were commercial gassers but the oil sands have been hardly productive enough to yield crude in commercial quantities. The region is close to the Kevin-Sunburst field and the same sands are expected to be reached.

Elk Basin Drilling

Casper, Wyo.—The rim of the Elk Basin field will be drilled extensively this year, according to officials of the Local Oil Company, which recently completed two good wells in the southern extension. The first well completed is flowing more than 200 barrels daily and another is a good pumper. The crude found in the extension is very light and commands a good price.

"Fastest Swab we ever used"

~ SAYS FITZSIMMONS ~

D. P. Fitzsimmons, District Superintendent for the Wentz Oil Corporation at McCamey, Texas, says that the GUIBERSON Swab runs in and comes out faster than any other swab he has ever used, and that it is wonderfully efficient in the matter of bringing up a maximum load.

The GUIBERSON is the fastest and most efficient swab, under any swabbing conditions. That is why it is doing the greater part of the world's swabbing.

The GUIBERSON eliminates sticking, torn rubbers, kinked wire line. Reduces wear on the casing to the minimum. Swabs more oil per set of rubbers. Two types, A and E. Fully patented

"Better Be Safe Than Sorry"

THE GUIBERSON CORPORATION

Box 1106, Dallas, Texas

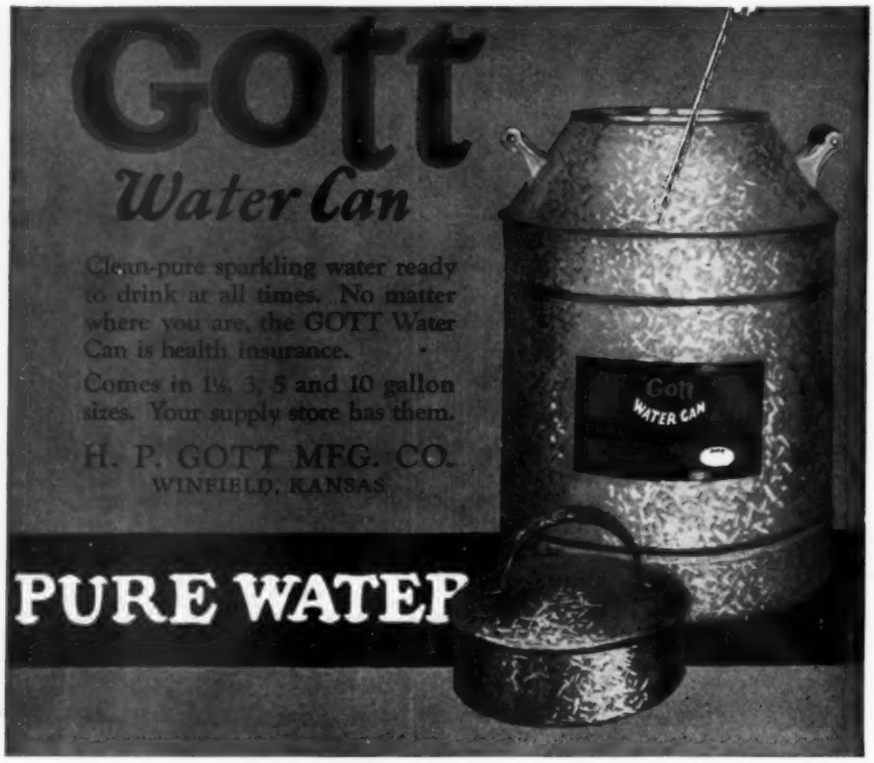
CALIFORNIA BRANCH: 1506 Santa Fe Ave., Los Angeles

402 W. First St., TULSA | 321 S. Osage St., PONCA CITY, OKLA. | 506 Trust Building NEWARK, O.

GUIBERSON

BETTER BE SAFE THAN SORRY

Say you saw it in The OIL WEEKLY


Gott
Water Can
Clean-pure sparkling water ready to drink at all times. No matter where you are, the GOTT Water Can is health insurance.
Comes in 1½, 3, 5 and 10 gallon sizes. Your supply store has them.
H. P. GOTT MFG. CO.
WINFIELD, KANSAS
PURE WATER
Gott
WATER CAN

BUY USED PIPE
and Save the Difference

4,800′	4-¾″	15 *lb.* used casing
20,000′	5-3/16″	17 *lb* used casing
15,000′	6-⅝″	24 *lb.* used casing
10,000′	8-¼″	32 *lb.* used casing
3,000′	8-¼″	28 *lb.* used casing
4,000′	10″	40 *lb.* used casing
15,000′	2″	used tubing and rods
8	25	H. P. Used Gas Engines
2	5″	Standard Rigs
8	6″	Standard Rigs
80,000′	3″	Used line pipe
50,000′	4″	Used line pipe
20,000′	6″	Used line pipe

Keystone Pipe & Supply Co.

607 HOLMES BLDG., FORT WORTH, TEXAS
Eastern Headquarters: Butler, Penna.
BRANCH STORES:
Wichita Falls, Holliday, Vernon, Breckenridge, Texas.

HARRY A. CAMPBELL F. LEE STEWART

NATIONAL PETROLEUM ENGINEERING COMPANY

ENGINEERS AND GEOLOGISTS

ATLAS LIFE BUILDING

TULSA, OKLAHOMA

APPRAISALS
REPORTS, COMMERCIAL AND TAX

SURVEYS
ESTIMATES OF OIL RESERVES

Geology of the Panuco District

(Continued from page 72)

tains much flint, either black or light in color. Some of the flint is colorless and glassy, and contains Radiolarians; there is also milky-white flint.

A core from East Coast Oil Company well 206-Halcon, taken at 396 feet below the top of the Washita, shows a light cream-colored very dense and fine-grained porcelain-like limestone breaking with a sharp sub-conchoidal fracture. In thin section the texture of this rock is seen to be extremely fine, but with foraminiferal skeletons filled with more coarsely crystalline calcite. The core shows also a thin layer of light brown-grey, partially laminated limestone which is less dense though very fine-grained.

The total thickness of the Washita in the Sierra de Tamaulipas is 444 feet. In the East Coast Oil Company Panuco leases its thickness is 480 feet. In other parts of the Panuco Field the total thickness is stated to be generally 580 feet; the increase in thickness is perhaps caused by crumpling.

The Washita of the Panuco Field belongs to a facies which might be given the name of Tamaulipas although the term Tamaulipas or its correlative, Victoria, is sometimes applied to the whole section of Lower Cretaceous of northeastern Mexico. The same facies of Washita occurring in Panuco is found in the Sierra de Tamaulipas, the easternmost front ranges west of Ciudad Victoria, in the Marland well near Rodriquez and in the diamond bore holes on the Naranjo Hacienda. A different facies, which can be termed the El Abra, is found in the easternmost front ranges to the west and northwest of Panuco, and in the southern oil fields. El Abra facies of the Georgetown is a creamy white, shallow water, heavy-bedded reef limestone largely composed of rolled fossils, the most abundent of which are rudistids and chamids, succeeded by a light grey limestone nearly without bedding planes and very largely composed of large Miliolid foraminifera.

A shale, highly calcareous, of dark brown to black color, very bituminous and interbedded with dark brown limestone underlies the Georgetown. Dull dark brown chert is apparently abundant. The thickness is unknown since it probably follows down the bore hole into samples taken from beneath its base but it is more likely between 25 to 50 feet thick. This member is the lowest rock yet found exposed in the Sierra de Tamaulipas. It there carries some poorly preserved ammonites and 50 feet of it is seen with its base not exposed. It is probably the equivalent of the Kiamitia of northeastern Texas.

Very little is known of the lower strata of the Cretaceous which appear to be entirely limestone. Cores taken 1100 feet and 1270 feet below the top of the Washita are fine-grained limestones with abundant foraminifera re-

THE FT. WORTH LABORATORIES

Field Gas Testing Analysis of oil field brines, gas minerals and oil
Sell Thermometers, Hydrometers and Laboratory Glassware
F. B. Porter, B. S., Ch. E., Pres
R. H. Fash, B. S., Vice-President
828½ Monroe St. Ft. Worth, Tex

S. F. SHAW
Consulting Engineer
Air and Gas Lift Design
301 Terrell Road, San Antonio, Texas

OIL MAPS—MID-CONTINENT FIELDS
County, State and General Maps
Township Plats — Lease Forms
GALLUP MAP & SUPPLY COMPANY
1320 Walnut St., Kansas City, Mo.

JOHN F. WEINZIERL
CONSULTING GEOLOGIST
ADVISOR ON GEOPHYCICAL INSTRUMENTS
619 Petroleum Bldg., Houston, Texas

ORIGINAL EOTVOS TORSION BALANCES
Sold and your personnel trained, or rented by the month or by the acre.
DR. GEORGE STEINER
Post-Dispatch Building
Houston, Texas

EDWIN B. HOPKINS
CONSULTING GEOLOGIST
25 Broadway
NEW YORK

PHILLIP MAVERICK
PETROLEUM GEOLOGIST
Telephone 93
Ricker & Dodson Bldg.
San Angelo, Texas

Maurice Hirsch & Ben J. Brown
ATTORNEYS AT LAW
601-2-3 Goggan Bldg
HOUSTON, TEXAS
Specializing in Oil Law and Land Law

PATENTS
Patents Obtained, Trade Marks, Patent Causes
JESSE R. STONE
Formerly Assistant Examiner
United States Patent Office
Andrews, Streetman, Logue & Mobley
12th fl. Union N. Bk., Houston, Texas

placed with calcite. A core sample from 1570 feet beneath the top of the Washita consists of a very light grey, dense fine-grained limestone of lithographic texture containing calcitized foraminifera. The thickness of the lower cretaceous limestone in the outcrops nearest the Panuco field is between 1500 and 2000 feet.

(To be continued)

Changes in Independent Oil & Gas Directorate

Tulsa.—E. C. Conners, has resigned as vice-president and director of the Independent Oil & Gas Company and R. B. Pringle has been elected to succeed him. Pringle was associated with Waite Phillips many years as vice-president of the Waite Phillips Company.

Another change in the directorate of the Independent Oil & Gas Company is the election of E. P. Currier, of New York, to succeed R. R. Barlow, of Tulsa. Mr. Barlow has been the company's purchasing agent since sit organization and will continue as such.

No other changes were made in the directorate, which is as follows:

E. H. Moore, president; R. B. Pringle, vice president; C. F. Kelsey of Fort Worth, vice president in charge of Texas operations; J. Donald Duncan, partner in the firm of Marshall and Auchincloss of New York, vice president, not active; W. C. Durant, president of the Durant Motor Company of New York, director; W. J. Zucker, vice president and secretary of the Warner Speedometer Corporation of Chicago, director; Don M. Kelley, of Kelley, Drayton and Converse of New York, director; A. W. Duston, chief geologist of the company, director; Villard Martin, partner in the legal firm of Ramsey, De Meules and Martin, director, and Russell Riggins, secretary-treasurer.

REGISTERED PATENT ATTORNEYS
United States and Canada
Send for blank form
EVIDENCE OF CONCEPTION
Bulletin "How to Establish Your Rights" and complete information free.
LANCASTER & ALLWINE
440 Ouray Bldg. Washington, D. C.

NAGLE'S
Oil Field Maps
New Structure Maps
Lincoln
Seminole
Pottawatomie
Kirk M. Nagle Map Co.
404 Ritz Bldg. Phone 2-4903
Tulsa, Okla.

Write for my State of Texas oil map free. Oil leases exclusively. Reference: Mercantile Agencies.
C. W. WEBSTER
W. T. Waggoner Bldg.,
Fort Worth, Texas

F. B. Anderson P. W. Anderson
Amil A. Anderson
ANDERSON & ANDERSON
Consulting Geologists
721-722 Union National Bank Building
WICHITA, KANSAS

ARTHUR C. BROWN
SOLICITOR OF UNITED STATES AND FOREIGN PATENTS
406-412 KENNEDY BLDG.,
Tulsa, Okla.
Mr. Ferd Krueger
in Charge
Phone 4-2319

PATENTS
Patents Obtained and Trade Marks and Copyrights Registered
428-29-30 Bankers Mortgage Bldg.
HARDWAY & CATHEY
Phone Preston 4790 Houston, Texas

THOMAS D. LYONS
Attorney at Law
MAYO BUILDING
TULSA, OKLAHOMA

Amarillo's
Two Great Hotels
Amarillo Hotel
400 rooms—
300 baths

Now Open—Rates $2.50 Up

Herring Hotel
600 rooms—
600 baths
Open Jan. 1, 1927—Rates $2.50 Up
Address communications to Ernest O. Thompson, Amarillo, Texas, President of both hotels

100 H. P. Waukesha Equipped Clyde Two Drum Hoist in Oregon.

P-712-L

By the Boot Straps

Out in the big timber country Waukesha Oil Field Power Uuits have set a new standard of performance. This outfit is used to cut out new roads thru the timber and over mountains or drag new machinery and equipment into place. When it moves to a new location it is skidded along under its own power—virtually pulling itself along by the "Boot Straps."

This service is not the constant grind you have in oil or water pumping but the sudden shocks to which an engine is subjected correspond very closely to those in cable drilling and well swabbing at both of which jobs these Heavy Duty "Ricardo Head" Waukesha Oil Field Units have distinguished themselves for years in the oil fields.

P-718-L

OIL INDUSTRY EQUIPMENT DIVISION

WAUKESHA MOTOR COMPANY

Waukesha Wisconsin

New York	Kansas City	Denver	Tulsa	Houston	San Francisco
Aeolian Building	*V. L. Phillips Co.*	*Wilson Machy. Co.*	*C. F. Comp Co.*	*Portable Rotary Rig Co.*	*C. A. Watts*

Exclusive Builders of Heavy Duty Gasoline Engines for Over Twenty Years

NEW EQUIPMENT, CATALOGS, BULLETINS, BOOKS

Novo Pumps Meet Many Service Needs

Operators will be interested in three new pumps just being introduced by the Novo Engine Company, Lansing, Mich. The gradation in size of these pumps makes them adaptable for any kind of field service from the heaviest to the lightest. These pumps are being marketed under the name "Flud Oild," and are made in one, two and three-cylinder sizes.

The singie cylinder enclosed piston pump is double-acting, inside packed, powered with Novo one and two-cylinder gasoline engines, or electric motors. All working parts, gears, pinions, bearings and crossheads are automatically lubricated and run in a bath of oil.

Generally speaking, the same construction characterizes all three sizes of the pumps.

A welded steel channel frame is used, forming a light, rigid, non-warping base to which the engine and pump unit are bolted. If desired the outfits can be furnished mounted on high speed rubber tired four wheel trailer, but they are regularly mounted on steel trucks.

The crankcase is enclosed and is oil tight. All openings are sealed with plates and gaskets. Large hand holes on top of the pumps permit inspection and adjustment of connecting rod bearings without dismantling the pump.

The cylinder is a one-piece casting with suction and discharge flanges. Brass cylinder lining is easily replaced with a chisel and a ball-peen hammer. The lining may be slit, pinched together and pulled out. The new lining is pressed into place and the edges peened with the ball-peen hammer.

The pistons are packed with cup leathers and can be easily replaced.

The driving pinion on the pump shaft is machine cut from a solid steel blank and is keyed to the shaft. This pinion, as well as the pump crankshaft gear, is located inside the pump crankcase. Both run in oil. The crankshaft gear is keyed to the shaft and also drives through a pin fastened to the throw of the pump crankshaft.

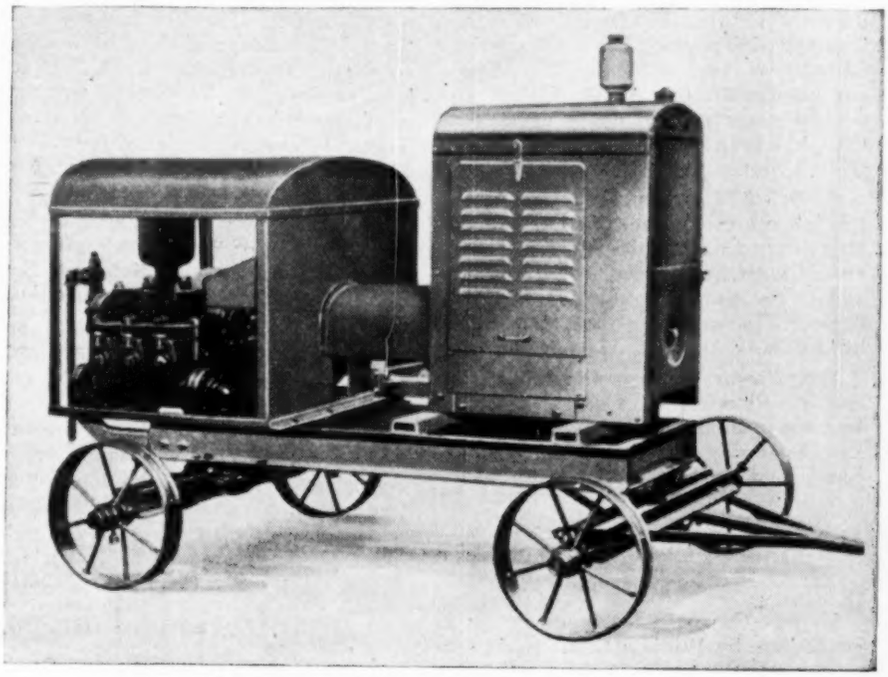
The connecting rod is of malleable iron, with heavy H section. The bearing is of high pressure babbitt and is adjustable. The crosshead is a one-piece casting, accurately machined and oil grooved. Ways are bored and held to close limits. The crosshead pin may be removed through the hand-hole plate on either side of the pump.

Intermediate shaft and pump crankshaft bearings are one-piece bronze bushings. Each bushing is pressed into a place which is bolted to the pump crankcase.

Inasmuch as the "Flud Oild" system of lubrication is a Novo development and is new, a complete description of it is worth while.

The pump crankshaft gear runs in the oil, and revolving brings oil up to the Flud Oild gear at the top. This small gear, the only moving part of the Flud Oild lubricating system, through an ingenious arrangement of oil ducts in its teeth, discharges oil with great force to both sides of the pump crankcase. According to the manufacturers, the oil is forced out of these holes under considerable pressure. Deep troughs lead the oil to crosshead, pin and all bearings. The connecting rod in addition to dipping in the oil, receives a torrent of oil from the small gear, above, at the top of each stroke.

More detailed information on these pumps can be secured from the Novo Engine Company, Lansing Michigan, by asking for Bulletin No. 140.



New Novo "Flud Oild" Pump, type NT Triplex

Fuller Products in New Catalog

Fuller Machine and Forge Works, R. F. D. No. 2, Box 15, Norwalk, California, has just published a booklet describing Rex Products which include equipment for pumping wells.

The catalog covers the Fuller stuffing box, the Fuller rod hanger, the Rex safety hook, the Rex belt tightener, the Rex sucker rod elevator, the special rod socket, and a steam line lubricator.

Copies may be secured upon application to the company.

Timken Bearings Widely Used in Industry

Canton, Ohio.—The annual report of The Timken Roller Bearing Company for the year ending December 31, 1926, shows net profits from sales, with other net income, of $8,474,103.00, after ample reserve for depreciation and after reserve for income taxes. Cash dividends were paid during the year to the amount of $5,403,969.00. A balance of $3,045,120.00 was transferred to surplus account. Excerpts from Mr. H. H. Timken's report to stockholders are of interest to users of industrial machinery:

"Our sales of bearings to manufacturers of general industrial equipment were approximately double those of the previous year. Timken Bearings are now used extensively in 300 different kinds of machinery, in many instances performing service heretofore thought impossible of any anti-friction bearing.

"During 1926 we completed our experimentation on three new types of Timken Bearings and began to successfully introduce them in the trade:—a line of very large bearings for heavy duty in steel mills, rolling mills, sugar mills, cement mills, etc., the bearing ranging in size up to 35 inches in diameter; a line of all thrust bearings which are rapidly being adopted in special machinery such as valves, pivots, jacks, crane hooks, oil well swivels, etc.; and a line of double bearings, self contained, for certain types of electric motors, turbines, pumps, etc.

Sullivan Names New Representative

Chicago.—O. J. Neslage of the St. Louis office sales staff, Sullivan Machinery Company, for several years past located in the Joplin, Missouri, lead and zinc district, has been appointed local manager at Mexico City, Edificio Oliver No. 3. A. W. Oakes, for several years past manager at Mexico City, has been assigned to a post in the United States.

C. W. Miller has been appointed special representative of the Sullivan Machinery Co. in Cuba and will co-operate with the company's general agents for Cuba, the Purdy and Henderson Trading Company, Habana 55, esquina a Emperado, Havana, Cuba.

Matt Brodie, manager for Asia, of the Sullivan Machinery Company, sailed last week from San Francisco for Tokyo, following a three months furlough in this country.

Bartlett Heads New Rope Company

Kansas City, Mo.—Announcement is made here by William L. Maxwell, secretary and treasurer, of the reorganization of the Black Steel and Wire Company to be known hereafter as the Union Wire Rope Company. R. H. Bartlett of Tulsa, president of the Braden company there and interested financially in other interests in Oklahoma, is president and will actively head the new corporation.

Mr. Bartlett's election was made at the annual meeting of the stockholders of the company at Kansas City, February 14. Mr. Bartlett succeeds Harry Black as president. H. R. (Hal) Gruber of Tulsa was elected vice president and will continue to maintain offices in the Kennedy building there.

The new directorate includes all the old directors except Mr. Black and has three new directors. Mr. Black is still a stockholder. The directors are E. W. Sinclair, president of the Sinclair Consolidated Oil corporation; A. T. Hopkins, engineer, P. W. Brooks and company, New York; Frank L. Moore of Tulsa, Henry N. Greis of Tulsa, and Mr. Bartlett, Mr. Gruber and Mr. Maxwell.

The company's only plant is in Kansas City. There are branch offices in Tulsa, Los Angeles, Portland and Seattle and in many other western cities.

Gold debenture bonds in the amount of $200,000 have been voted to provide additional working capital for the company which is incorporated under the laws of Maine. The change in name and the bond issue were approved recently at a special stockholders' meeting held in Augusta, Maine.

Lincoln Electric Sales Organization Changes

G. N. Bull formerly with the Worthington Pump and Machinery Company in their Washington, D. C. office, has been made district manager of the New York office of the Lincoln Electric Company. C. S. Freeman formerly in charge of the Lancaster office has been transferred to the Buffalo office and made district manager. S. W. Shultz, formerly of the Philadelphia office has been put in charge of the Lancaster office. Ed. J. Pfister formerly of the Buffalo office has been transferred to the Philadelphia office.

HEYDRICK'S MAPS

WEST TEXAS COUNTIES

New 4000-foot scale maps of Crane, Upton, Reagan, Ward, Winkler, Ector, Midland, Glasscock, Martin, Howard and Andrews Counties, and north part of Crockett, Pecos and Reeves Counties, now ready. Other counties available soon.

These maps show fee and lease owners, development, towns, railroads, highways and drainage.

On cloth, $10 each; paper, $6 each

HEYDRICK'S COMBINATION MAP NO. 1

Pecos Valley District

A general purpose, small-scaled (15,000 feet 1 inch) map. Very complete in detail, showing names and boundary lines of counties, the towns, railroads, highways and streams, land owners, principal lease owners, and present oil development. The area covered includes all of Winkler, Ector, Midland, Glasscock, Ward, Crane, Upton and Reagan, northeast Reeves, north Pecos and north Crockett Counties. Size of map is 50 inches west to east and 35 inches north to south.

On cloth, $15.00; paper, $10.00

A complete set of the thirteen small-scaled maps, comprising the combination map, may be had for $15.00 on cloth and $10.00 on paper.

HEYDRICK MAPPING COMPANY

Wichita Falls, Texas

Marion Will Open Fort Worth Office

Fort Worth, Texas.—Marion Machine Foundry and Supply Company, well known manufacturers of oil field equipment with headquarters at Marion, Indiana, will open an office here within about two weeks. The office will be under the management of L. Sebring, and will take care of the Central-West Texas district extending as far west as Merkle and Sweetwater.

Mr. Sebring is at present located at 3955 La Fayette Street, Fort Worth.

WM. D. DUNN

Dunn President Passes Away

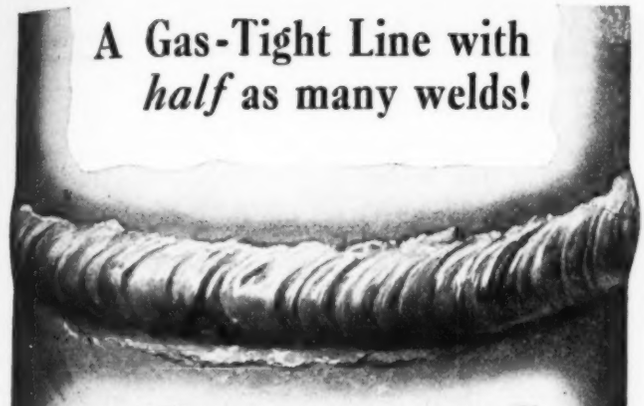
Oxnard, California. — William D. Dunn, president of the Dunn Manufacturing Company, well known manufacturing concern making oil field equipment, passed away at his home here on February 25. Mr. Dunn was 63 years old. He spent many years in the oil business in Pennsylvania, but when he came to California in 1911 he founded the company of which he has since been president.

His death followed an illness covering several years.

Eight Welding Gangs on Magnolia Gas Line

Dallas, Texas.—Eight gangs of welders and pipe line workmen have been recruited and scattered along the route of the Magnolia Gas Company's natural gas line from Latex Station, located near DeBerry in Northeast Texas, to Dallas and Fort Worth. This line will be approximately 198 miles in length, and made up of combination 14-16-18 inch welded pipe. The line is to serve industrial plants in Dallas, Fort Worth and intermediate points along the route of the line with natural gas obtained from North Louisiana and Northeast Texas fields. Including the natural gas being boosted from the latter gas areas to refineries at Beaumont, Magnolia Gas Company will handle about 105,000,000 cubic feet of gas daily when the Dallas-Fort Worth extension is placed in operation about July 1.

A Gas-Tight Line with *half* as many welds!



ODEE pipe is furnished in double lengths with the ends cut smooth and beveled for perfect joints—reduces field-welding almost 50%! ODEE pipe carries our guarantee of utmost service, at prices that save you 1/3 or more. With a reasonable down-payment, the line can be financed out of income. We render real service on all sizes of new and used pipe and casing. Write our nearest office.

Joseph Greenspon's Sons Iron & Steel Co.

Saint Louis,
Tulsa, Okla. Fort Worth, Texas

TYLER

Boiler Tubes

Charcoal Iron
for bad water conditions—

Lapweld Steel
for good water conditions—

For long tube life.

The Tyler Tube & Pipe Co.
Washington, Pa.

Texas Stock—Harrisburg Pipe and Pipe Bending Co. Houston, Texas

Oklahoma Stock—Harrisburg Supply Co., Tulsa, Oklahoma.

Do you know about BAROID

LEADING oil drilling companies in the Mid-Continent, Colorado and Wyoming fields use Baroid to prevent dangerous blow-offs.

Baroid is specially processed barytes which stays in suspension indefinitely, is absolutely inert, non-electrostatic and non-electrolytic. Its sliming qualities protect equipment in drilling through the hardest formations.

Stocks of Baroid are carried by

Peden Iron and Steel Co., *Houston, Texas*
Arkmo Lumber Co., *El Dorado, Ark.*
Thomas E. Robinson, *Tulsa, Okla.*
Peden Iron and Steel Co., *Shreveport, La.*

BAROID

NATIONAL PIGMENTS AND CHEMICAL COMPANY
St. Louis, Mo.

Tribal Osage Oil Leases At Public Auction, March 28, 1927, By United States Government

March 28, 1927, at Pawhuska, Oklahoma, about 70,000 acres will be offered for oil leases in quarter section tracts. Bids will be for bonus in addition to royalties, 25 per cent payable on day of sale, balance in three annual installments, with acceptable security. Within advertised area there are about 9,826 oil wells producing from one barrel to 2,000 barrels each, the total daily production for December, 1926, being about 70,000 barrels; also, there are about 75 wells drilling. All lands are now leased separately for gas. Blue print maps of area advertised, showing tracts producing oil or gas, can be had for fifty cents each, also logs of producing oil or gas wells for twenty-five cents each well. Write U. S. Superintendent, Osage Agency, Pawhuska, Oklahoma, for maps, logs or other information.

CULLED FROM THE NEWS

By Kent Ridley

"WE do not pay enough—" written over an interview with President Teagle, in our last issue, would probably get a lot of amens from the harrassed horde of producers who have all their investments in wells and no surplus or credit for storage. That is if there is enough religion left in the ranks for there to be an amen corner.

But cutting him off like that is hardly fair, even for a pleasantry. There is much truth in his statement that the trouble the Industry now finds itself in is largely the result of failure to pay attention to storage.

The writer has wondered for a long time why the Oil Industry has based its calculations altogether on estimates of daily average. Basically, such is sound practice perhaps, but so much artihmetic is involved that only a few statiticians carry it out, and none of them agree when the problem has been worked, and there is no answer in the back of the book.

Possibly last week's estimated daily average of 2,461,050 barrels means more to us than saying the total output for the week was estimated at 17,227,350 barrels, because two millions is more than the average mind can visualize right off, and the larger figure is uncomprehensible in proportion to its size.

Mr. Teagle is right. What the Industry needs to get in its mind is the actual accumulation of oil, not the estimated daily average.

* * *

W. S. Farish made another trip into the Panhandle. The last time he went up there he tried to explain to the chambers of commerce and land owners and boosters in general just why Panhandle oil was not worth as much as some others. He was considerably written up in the papers. We'll just bet this time that he let Mr. Teagle do the explaining. The Panhandle, it will be remembered, was all primed for an increase when the recent landslide of reductions were announced.

* * *

A few more trips down from New York by big company executives followed by price reductions is going to make the boys in the Mid-Continent wish that the controllers of their destinies stay closer to Wall Street. It seems that while they are just hearing about oil and oil wells it is alright, but when they get on the ground they get stage fright.

* * *

Anyway, for a time at least, the government will have little to say concerning the near approach of the exhaustion of the oil supply. Since so much time was wasted on that subject the statistics have been revised and a lot of new figures put in—cracking stills for instance.

* * *

Wallace Pratt, in his recent article in "The Lamp" on the relations of geology and the rest of the industry, practically paraphrases Doctor Faustus' "that we in truth can nothing know." Wonder if these astute geologists are now getting ready to raise the devil?

Wall Street was talking about the impending price cuts a long time before they materialized. It looked then as if the idea was to be safe on the stock fluctuations always associated with such changes. But with inventories reduced on all that oil in storage and handsome dividends announced from operations of last year, when crude was high and gaoline low, the market has not been greatly disturbed. Probably with its foresight the Street can see the readjustment of those inventories freighted with a lot more added, while the posted price was down. Stocks were already big, it will be remembered, when all those lines started for the Panhandle last fall.

* * *

Proposal of the navy department that adjoining land owners give the government a shore of the oil drawn from government's lands in the Elk Hills reserve through producing wells along the line, presents a fine opportunity for some California oil producers to display some patriotism. But as the government has already received some ten million dollars worth of oil and wells in that deal, for which the court says it must not pay, the attitude probably will be that the government is not a worthy object of charity and is amply capable of caring for itself, whether or not officials of the department are honest. The government is forcing production in Oklahoma, why should it not, in turn, be compelled to produce its wells in California?

* * *

Mr. Nicholas has apparently tired of gathering together each half-year a bunch of small town oil dealers who would politely applaud and then ignore his dissertation on the unsoundness of crude prices, the need of making pipe lines handle smaller batches as "common carriers," and the general cussedness of the "splendid integrated companies." As a cure he has raised the ante so that the grocery clerks get out of his game, and hereafter he will only play with the boys who have cash and inclination to participate in his advertising campaign, which is based primarily on the appeal of giving business to "independents." His admirers all say that "Nick" is two to ten years ahead of the rest of the world in his visions. We can remember when the drill sergeant was just as caustic about us being ahead of as behind the line.

* * *

Conviction of Harry F. Sinclair of contempt of the Senate has been pounced upon by an element of the press as a shining example of a malefactor of great wealth brought to time, which is hailed as a precedent. Sinclair is accorded the distinction of being the second man ever given a sentence for refusing to tell the august Senate all the details of his affairs, but probably his greatest distinction is that he has proven the purchaser of the world's gildiest gold brick, and his "crime" was a disinclination to talk about it.

* * *

Judson Wellever's speech about the oil industry being better understood by the public got in the newspapers just at a time when the industry is laying awake nights wondering if it understands itself.

STEARNS-ROGER

"Makes Hole Fast"

"URBCO" Rotary Bit

Patents Pending

The Bit For Offsets

Has been regularly averaging from two to three times faster than Fish Tails—through the same formations.

One of the Reasons

Water holes are directly behind each disc's cutting edge. This keeps the cutters cool. Also provides clean surface at all times.

Universal

It goes through soft and hard formations—eliminates changing bits. It does not "ball-up" easily.

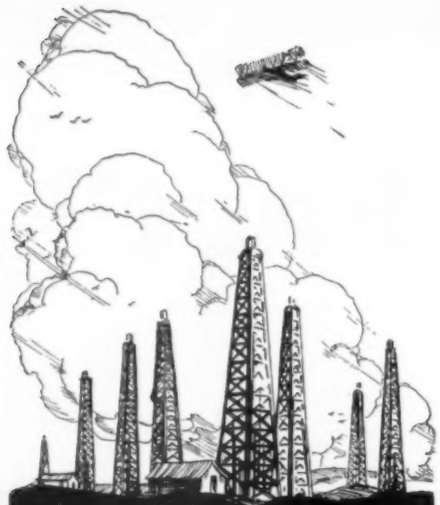
Write For Information On The

"URBCO" *Speed* Bit

Stearns-Roger

THE STEARNS-ROGER MFG. CO. DENVER COLORADO

Say you saw it in The OIL WEEKLY



CONVENIENT SERVICE TO THE CRANE UPTON OIL FIELDS

THE TEXAS AND PACIFIC RAILWAY
TEXARKANA SHREVEPORT EL PASO NEW ORLEANS

SCHEDULE

GOING

Lv.	Dallas	1:15 P.M.	9:00 P.M.
Lv.	Ft. Worth	2:40 P.M.	10:40 P.M.
Ar.	Midland	12:28 A.M.	10:58 A.M.
Ar.	Odessa	1:00 A.M.	11:33 A.M.

RETURNING

Lv.	Odessa	5:40 A.M.	6:20 P.M.
Lv.	Midland	6:15 A.M.	6:56 P.M.
Ar.	Ft. Worth	3:40 P.M.	6:30 A.M.
Ar.	Dallas	5:05 P.M.	8:30 A.M.

Motor Bus Service to and from the Oil Fields

Geo. D. Hunter G.P.A. Dallas, Tex.

SQUEAKS FROM THE BULL WHEEL

THE RAMBLIN' ROCK HOUND
(By Clyde M. Becker)
Fifth Episode

The derricks up, the hole starts down
In country, village, hamlet, town—
The only thing the nesters tell:
"We're boring down our first oil well."

Each puts on his Sunday vest,
And saunters forth to view the test.
With joy and pride their bosoms swell,
"They're boring down their first oil well."

Near contract depth they had a show,
Their hopes rose high—she made one flow.
They drilled on in and hope dropped dead
"Pacific Ocean," driller said.
That Rockhound heaved a soulful sigh,
And swore he knew that log ran high.
The drillers said "that lime and shale
Sure makes us think we're on the trail."
The scouts all said "she made one flow,
We'll recommend she ought to go
Down to Wilcox sand or lime,
That's how we figured all the time."
The crew speaks up they'll work for beans,
The Big Boys dig down in their jeans.
An Independent furnished oil
To sorta make the old pot boil.
So once again they're making hole,
Just as the nesters—bless their soul—
Began to weep, lament, harangue,
They ought to sue the whole shebang.

One night there rose from the dark hole
Perfume that stirs on oil man's soul.
A mist up round the driller's head;
Gas from live oil the Rockhound said.
They're comin' out yelled wire line jack.
And the toolie jumped to pull his fire,
Then headed where the woods are higher,
And as the others went from there
The tools and cable took the air.
With a rip and a roar, and a kick and a cough—
The Wilcox sand was paying off.

Finale

There is some news that travels fast
Of great good luck or sad disaster;
But word of Gabriel's final blast,
Could never get there any faster,
And long before that crack of day
They'd heard the boys had got the pay.
And they balled the jack in a heck of a rush
To see that gosh durn dry hole gush.
And each one came with mind intent
To celebrate the glad event.
And those who stood by understood
Why oil men all are a brotherhood.

Presence of Mind

A few minutes after an alarm of fire was given in a hotel, one of the guests joined the group that were watching the fire, and chaffed them on their apparent excitement. "There was nothing to be excited about," he said. "I took my time about dressing, lighted a cigaret, didn't like the knot in my necktie, so tied it over again—that's how cool I was."

"Fine," one of his friends remarked, "but why didn't you put on your trousers?"

Old Lady—Can I take this car to Schollay Square?

Conductor—No, ma'am. The last lady we let do that tried to trade it off for a flivver.

Flubb—That last home brew recipe Jimpson tried must be a corker.

Dubb—Enthusiastic over it, is he?

Flubb—No, suspiciously quiet.

The Complex

A coast and geodetic survey engineer was making observations in Texas for compass declination. He was at his instruments, and taking copious notes, when a rangy Texan walked up, examined the outfit, and inquired:

"Whattyer doin' young felly?"

The engineer, new and enthusiastic in the coast and geodetic service, replied in detail:

"I am determining the latitude, longitude and declination of the compass and establishing a permanent survey monument for the benefit of local surveyors. The compass pointing goes through a small change in a period of years and I am determined the exact pointing at this date. I am observing on the sun, and by astronomy I am able to establish a true North and South line. Then I determine the magnetic pointing of the compass, and the angle between the two gives me what I'm looking for—the declination of the compass."

But the native wasn't convinced. He spat at the instruments, gave his big hat a vicious tug, and announced.

"Ye can't fool me, young felly; ye're looking for oil."—Life.

Obeyed the Rules

A young man called at the office of a famous diagnostician, and asked to see the doctor. The nurse directed him to the next room and told him to remove all his clothing. The young man protested. The nurse insisted it was the doctor's absolute rule. A few minutes later the doctor entered and found the visitor stark naked.

"Well," said the doctor, "what seems to be your trouble?"

"Doctor," said the young man. "I called to see if you wanted to renew your wife's subscription to the Ladies Home Journal."

What He Wanted to Find

"Say," yelled the Chief of Police. "What do you mean by speeding like a mad man? You'll kill somebody. Why in blazes don't you use your noodle?"

"Noodle!" gasped the man. "Where in the heck is the noodle? I pushed and pulled and jiggered every darn thing on the dashboard, and I couldn't stop her."—Standard Gasoline Booster.

Missed the Party

"What color dress are you going to wear to the Final Ball?"

"I'm going to wear black to match my date's hair. What color'll you wear?"

"I-I-don't think I'll go. My date's baldheaded."

The Ludlow

The Most Dependable Source -FOR VALVES

LUDLOW has been supplying the oil industry with valves for many years. During that time, the service rendered has been such as to unquestionably place Ludlow as the most dependable source for valve supplies. New customers as well as old—are assured at all times of this same dependable service as given in the past years.

TRADE LUDLOW MARK

LUDLOW VALVES

For extremely satisfactory service Ludlow Valves are highly recommended. They are a quality product throughout. Made in all standard sizes for pressures up to 3000 standard pounds. Special equipment too, can be supplied.

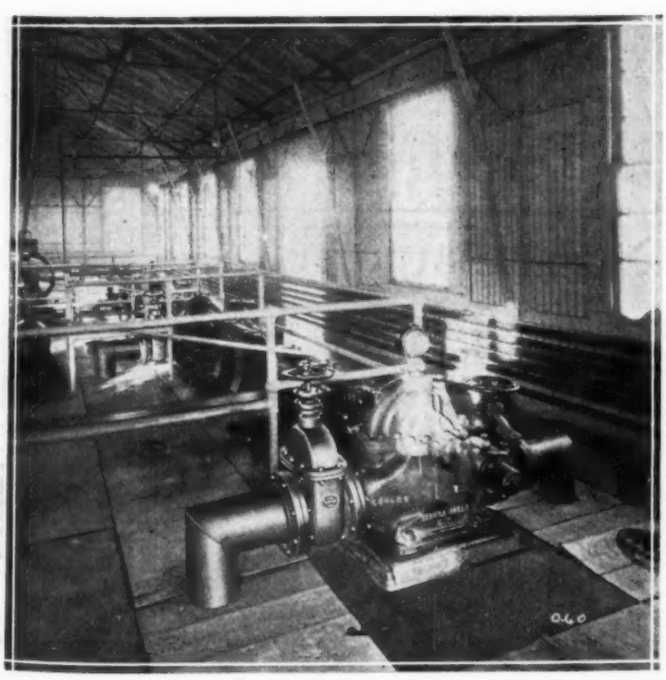
Catalog sent on request

THE LUDLOW VALVE MFG. CO.

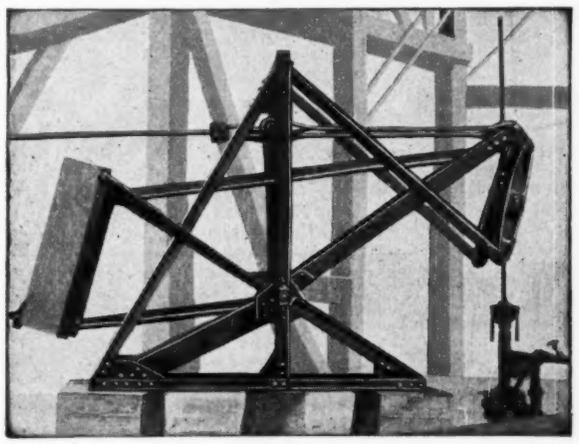
TROY, N. Y.

Branch Offices:

Kansas City, Mo. Chicago, Ills.
Boston, Mass. Pittsburgh, Pa.



Double Gate Parallel Seat Valve



Removable Bearings

Straight Lift + Machined Bearings + Easy to Install + Reduces Losses + Unit Assembly + All Steel Construction + Removable Bearings ←

Reduces Friction + Reduces Shocks + Slow Starting Motion + Long Stroke + Easy Stroke Adjustment + Large Oil Reservoirs + Positive Lower Stop

THE bearings in the Master Pump Jack are easily replaced at small cost. Putting all wear on light inexpensive parts keeps operating costs down.

In the Master the smallest detail is thoroughly worked out for a sound economically operated Jack, that will give you lasting dependable service at small cost.

Oilwell Accessories Company

329 E. Fourth St., Phone 3-1050

TULSA, OKLAHOMA

Gulf Refining Company

OKLAHOMA
TEXAS
LOUISIANA

Refiners of PETROLEUM

GASOLINE
REFINED OIL
NAPHTHA
GAS OILS
PARAFFINE WAX
PETROLEUM COKE
FUEL OIL
LUBRICATING OILS
CYLINDER
ENGINE
CORDAGE

Red and Pale Paraffine Oils

General Sales Offices: PITTSBURGH, PA.

District Sales Offices:
NEW YORK, HOUSTON, ATLANTA, BOSTON, NEW ORLEANS, PHILADELPHIA, LOUISVILLE

Ocean Terminals:

Boston (Beverly), Mass.
Providence, R. I.
New York Harbor (Bayonne, N. J.)
Jacksonville, Fla.
Port Tampa, Fla.
Mobile (Magazine Point, Ala.)
Philadelphia (Girard Point, Pa.)
Charleston, S. C.
Savannah, Ga.
New Orleans (Gretna, La.)
Port Arthur, Texas
Galveston, Texas